Industry Financial Analysis

FINAL REPORT

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TURISMO DE PORTUGAL

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NOVA SCHOOL OF BUSINESS & ECONOMICS

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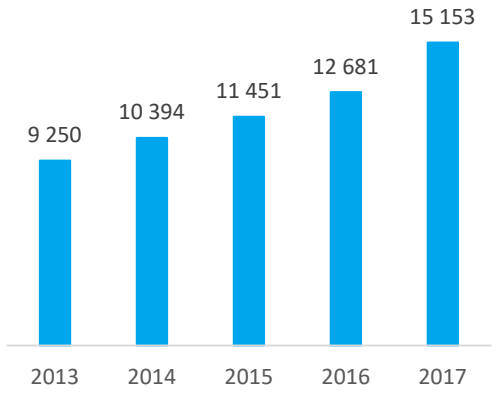
Context

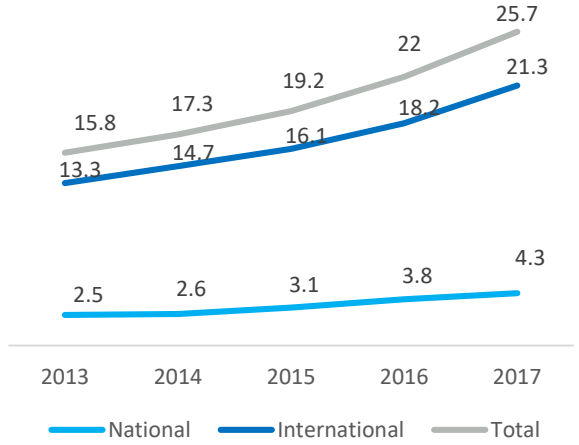

Azores

The macroeconomic conjuncture for the Tourism Industry in Portugal exhibits an extremely positive outlook for the country

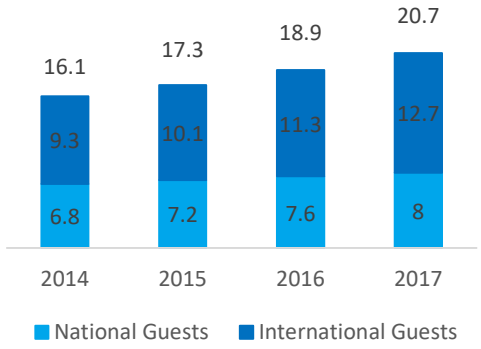
Revenues of the Tourism Industry, in Portugal
(2013-2017; Millions)



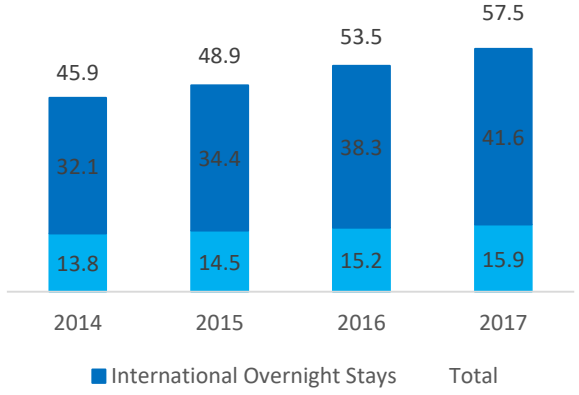
Nº of Tourist Airport Arrivals, in Portugal
(2013-2017, Millions)



Nº of Guests in Portugal
(2014-2017; Millions)



Nº of Overnight Stays
(2014-2017; Millions)



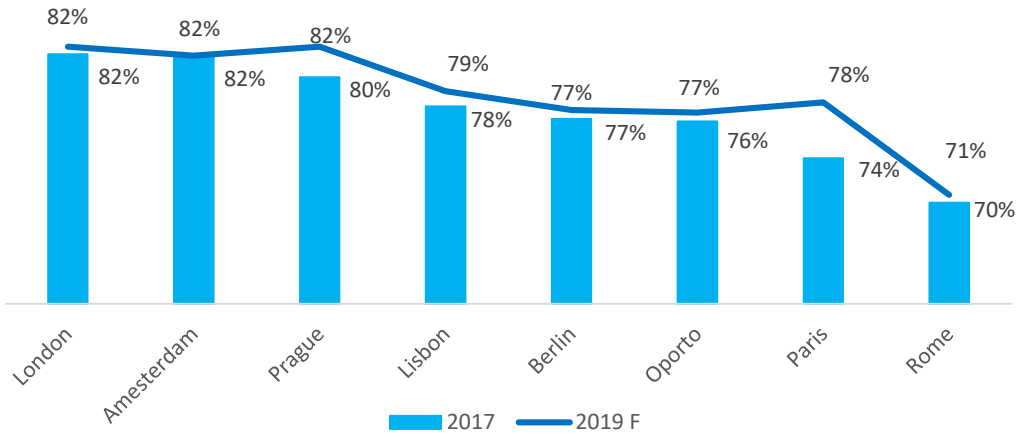
- Tourism has become a very important sector for the Portugal's economy, achieving **record levels throughout the years**.
- In 2017, this sector was responsible for **18% of the total country's exports** and contributed for **7.8% of the total GDP.**
- There was an **increase of 23% on the item "Travel and Tourism"** of the Balance of Payments, in 2017, mainly due to an **acceleration of the revenue to 19.5%,** amounting to 15.2€ bn and achieving the highest growth level.
- Between 2013 and 2017 the tourism revenues' **average annual growth rate was of 13.1%**

- These revenues are orginated by an **increasingly higher number of arrivals** at the country, which attained the maximum value in 2017 (25.7 million), growing 16.8%.
- Considering the tourism accommodation acitivity, it is possible to infer that **the number of guests and overnight stays also showed a rising pattern**, growing at an average annual rate of **9.5% and 8.5%**, respectively. For both indexes, the number of **foreigner tourists is higher** than national ones, as 7 in 10 guests are international.
- **Algarve, Lisbon, Madeira and the North** are the prefered destinations, however, the evolution in the regions was overall positive.

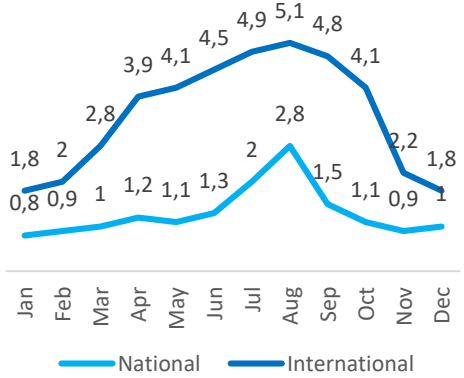
Source: Turismo de Portugal; INE; Statista; Travel BI; PwC – European Cities forecast report

Occupancy Rates, Rev/PAR and ADR for Portugal are growing, with Lisbon and Oporto being ranked within the leading European Cities

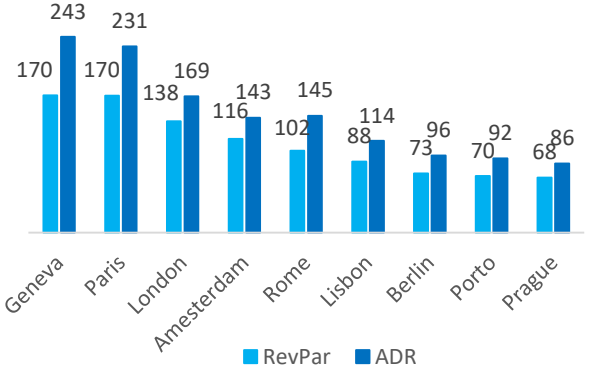
Occupancy Rates
(2017 and 2019 forecasted; %)



Seasonality of Overnight Stays
(2017; Millions)



RevPar and ADR
(2017; Million €)



Source: Turismo de Portugal; INE; Statista; Travel BI; PwC – European Cities forecast report

- Taking a look at the occupancy rates in Portugal, one may confirm its **positive evolution**. In 2017, **this index reached 53% per bed and 66.5% per room**.
- Within Portugal, **Madeira (71.5%)** and **Lisbon (60.3%)** displayed the highest rates.
- **Lisbon and Oporto** were ranked on the leading European Cities regarding occupancy rates. Moreover, these rates are **forecasted to gradually continue their growth**.
- The Rev/PAR (Revenue per Available Room) and ADR (Average Daily Rate) in Portugal followed the same path as the occupancy rates, **exhibiting growing trends**.
- For the overall country, there were values achieved of **50.2€ for Rev/PAR** (2017) and of **79.7€ for ADR** (2016 – no available values for 2017).
- Again, **Lisbon and Oporto** are on the top European Cities regarding these indicators, in 2017. Moreover, the forecasts predict Oporto's Rev/PAR will increase by **10% in 2018 and by 5% in 2019**, whereas Lisbon's will **increase by 7% in both years**, having the same growth rates as Amesterdam, Paris and Prague. ADR rates will also increase for these two main cities (**12% for Lisbon and 15% for Oporto**).
- Despite the positive outlook, it is necessary to bear in mind that tourism in Portugal is still **affected by seasonality**. However, this factor is decreasing importance (-1 pp in 2016)

Turismo de Portugal is the Official Tourism Authority in Portugal. It has been recognized internationally due to its best practices

- Turismo de Portugal is the **national tourism authority in the country**. It is under the jurisdiction of the Economy Ministry and it is responsible to for **promoting, valuing and making the tourism activity sustainable in Portugal.**
- This government institution has been recognized internationally, winning several prizes and distinctions, as for example the **World Travel Awards** (2018 and 2017), which considered Turismo de Portugal the best Official Tourism Organism of Europe; and the **Efficacy Awards** regarding the international campaign "Can't Skip Portugal", between others.
- Turismo de Portugal has teams headquartered abroad, being present on **21 international markets** that are considered relevant for the external promotion of the country, and for supporting Portuguese companies abroad.
- Moreover, Turismo de Portugal also **co-finances projects in partnership with the European Union** and cooperates with institutions as the **OECD Tourism Committee**, the **European Travel Commission**, the **World Tourism Organization,** within others.
- Turismo de Portugal also participates in the **capital structure of some financial societies**, which support the strategic investment and development of SMEs.

International campaign "Can't Skip Portugal"
(Campaign Video Cover for a TV advertisement)

Turismo de Portugal presence around the globe
(Relevant markets for promotion vs. Selective operation markets)

Source: Turismo de Portugal

Turismo de Portugal has 4 main operating areas. These allow the development of the tourism sector in Portugal and the promotion of the country

Turismo de Portugal has **4 main objectives**, as follows:

01 Promote Portugal

- Projection of Portugal in the external markets, with the help of the **21 teams present abroad.**
- Portugal is **promoted as a destination not only to visit**, but also to study, to live, to invest and to welcome national and international events.
- The promotional campaigns are a **main key strategy** of Turismo de Portugal.
- The developed project will the Insitution to **promote the tourism and investment in Portugal**, as it displays a financial analysis of the sector, necessary for potential investors.

02 Development and Support of Enterprises

- Turismo de Portugal provides **technical and financial support** to companies that rely on touristic activities as their core business.
- This support has as objectives to **increase the quality** of the touristic infrastructures; to develop **new products**; to transform **business models**; to support **innovation, entrepreneurship and startups** in the tourism area.
- Therefore, the Institution contributes to the **quality of supply**, to the **invesment in tourism** and to **entrepreneurship.**
- The developed project will help Turismo de Portugal to have a **quick overlook** about the impact of the financial support on the companies of the sector.

03 Add Value and Quality to the Tourism Professions

- Turismo de Portugal has a network of 12 schools, contributing to the **quality and sustainability of the service** provided by the companies and agents of the sector.

04 Regulation and Inspection of Gambling

- The **control, inspection and regulation of gambling in Portugal** is exercised by the Gambling Commission and by the Service of Regulation and Inspection of Gambling, which belong to Turismo de Portugal.

Source: Turismo de Portugal

An in-depth analysis of the data provided by Turismo de Portugal will allow the construction of a Dashboard and a Report to ease the assessment of the companies within the sector

01 — **Characterization of the database** delivered by Turismo de Portugal

Assembling all the databases available and figure out the **gaps of information** and ways to surpass those. This stage allowed to understand the best way to **financially characterize the sector** and the **main difficulties** that would be faced regarding the data available, discrepancies found and **limitations** the project might have.

02 — **Identify the main financial ratios** to evaluate the performance of the companies of the sector

After clustering the sample, it was possible to understand better the tourism industry in Portugal and **deepen the knowledge about the companies' financial and economical condition**, along with the main trends they are following.

03 — **Development of a Dashboard** in order to ease a continuous assessment of the companies

This interactive Dashboard in Power BI presents the **main indicators to assess the tourism sector**, allowing a **quick and efficient vision** about the status of the various subsectors, along with all the regions of the country, and over the years.

04 — **Creation of a financial report** about the Tourism sector in Portugal, focusing on the Accommodation subsector

The report accompanies the dashboard and presents the main results found on an **in-depth analysis of the ratios over the several subsectors, focusing mainly on the Accommodation one** as it was the subsector with the highest amounts of information and databases provided. This analysis also makes reference to the status of the main regions of Portugal and the evolution over the last four years.

Both the Dashboard and the Financial Report shed a light on crucial elements for decision-making amongst investors and Turismo de Portugal itself

Investment Analysis

Companies' arrangements of assets and liabilities is analyzed, as it proves **essential for investment and credit analysis purposes**. Differentiation amongst dissimilar revenue-generating firms is performed, where lower-grossing ones ocasionally perform differently.

Financing of Operations

Both **debt and equity** finance company's operations and prove to be critical in defining a firm's value, provided that debt-to-equity ratio is often used in evaluating idiosyncratic risk. Financial autonomy ratio sheds light on how companies finance their operations.

Dashboard + Financial Report

Its structure offers a comparative outlook on different regions, subsequent sectors and subsectors – **higher and lesser performing regions, sectors and subsectors** are spotted, whose values are justified by their inner-components. Follow-up conclusions shall be drawn.

Identification of Trends

The exhibited financials assist investors in witnessing **growth trends** and **follow-up projections** might be set. If goals are expected to not be met, shareholders must find alternatives directed at either lowering the costs or increasing revenues.

Profitability Assessment

Profitability is a key factor on **ratio analysis and investment valuation**. Both general and industry-specific ratios for the accommodation subsector are used to better access their performance. A thorough **itemization of costs** is available to justify gaps.

Chapter II

Methodology


Algarve

Despite the variety of reports, the vast majority lack financial indicators to characterize the sector

Reports	Type	Focus	Economic and Financial Indicators	
 **Economic Impact** by World Travel & Tourism Council	Global	Macroeconomic KPI analysis for a country or region.	• GDP contribution • Employment contribution	• Exports • Investment
 **European cities hotel forecast for 2018 and 2019** by PWC	Europe	Trend analysis within 12 important European cities covering financial, retail, cultural and Tourism levels.	• Occupancy rate • Average Daily Rate (ADR)	• RevPAR • Supply
 **Overview of Tourism Trends in Tallinn in 2017** by Tallinn City Tourist Office	Tallinn, Estonia	Tourism estimates analysis for the city of Tallinn	• Seasonality • Average length of stay • Occupancy rate	• Average price per tourist • Passengers at the airport and harbour
 **Tourism Market Overview 2017** by EY	Istanbul, Turkey	Macroeconomic KPI analysis within the Tourism Sector in Turkey and in the city of Istanbul	• GDP weight and industry investment • Average length of stay	• Occupancy rate, ADR and RevPAR • Main industry players and major M&A deals
 **Portuguese Hospitality Atlas 2018** by Deloitte	Portugal	Análise da performance do sector a nível nacional e regional em Portugal	• Ranking by hotelier (no of hotels and rooms) • Average length of stay	• Occupancy rate, Rev/PAR and no of rooms per region • Seasonality Index

- Global analysis reports are more focused on **macroeconomic indicators**, which then lack detail in terms of financial data to accurately characterize the sector (i.e. Economic Impact).
- Within country or city specific reports one may find more detailed information, but **none of them is deep enough** when considering the financial indicators presented (i.e. Tallinn).
- The most differentiating analysis are those performed by consulting firms, where other type of financial data is identified. These reports offer different business perspectives and suggest more personalized conclusions (i.e. Tourism Market Overview). Nevertheless, they **still lack detailed analysis on the industry's financial performance**.
- At a national level, Deloitte's report stands out from the others, as its content exhibits regional results within the tourism sector in the country. Yet, the indicators presented in the report **do not differ much** from the other analysis. This leads to the conclusion that the industry reports available lack financial indicators to characterize the sector, as **other type of measurements are required to determine the profitability, solvency and efficiency performance of the sector**.

Financial ratios such of Liquidity, Leverage and Profitability have been considered significant as a good predictor of bankruptcy

- The use of **Financial ratios has been widely used by decision makers** (i.e. financial managers, investors) to evaluate companies' performance such as its financial health, and also to make relative comparisons within an industry.
- These ratios became relevant due to its **easy to compute** characteristics which make them appeal, despite the subjective choice of specific ratios in detriment of others.
- **Davis and Peles** (1993)[1], in a favourable way, suggested the existence of financial **ratios' equilibrium values** (that can be simply industry averages), with a faster adjustment experienced by companies' liquidity ratios than performance ratios (i.e. gross margin ratios) and also a faster adjustment to the optimal target from smaller companies.
- These adjustments, even though differing per industries, alongside with the speed of adjustment help **predict future values and events**.
- It is also argued (Feroz, Kim and Raab, 2013)[2] the usefulness of Data Envelopment Analysis (DEA) efficiency scores – an analytical tool to evaluate the relative technical efficiency of a company - to somewhat complement the information generated by the traditional ratio analysis when evaluating the operating and technical efficiency of a company.
- It shows that there is a **serial correlation coefficient for performance measures and liquidity ratios higher than solvency ratios**.
- Following the fact that financial ratios can be useful for certain purposes such as predict future events, **several studies focus on predictiveness of failure and bankruptcy** (among others) as a starting point for an empirical verification.
- However, the majority of the studies focus only in public owned companies due to its publicly obtainable information, which in the sense of our thesis may not be the most relevant.
- It is mentioned the **size of a company as a significant predictor** (Ohlson, 1980)[3] **within one year**, as the probability of failure is higher among smaller firms (Beaver, 1966)[4], making the results more relevant for bigger ones, which presents conclusive results for five years prior to failure (accuracy diminishing after the year two).
- An extended literature (Beaver, McNichols and Rhie, 2005)[5] using a general form of the hazard model, **reinforces the strength of predictive models over time**, but also focus on the **importance that information that is not included in financial statements may have in the decline of the financial ratios' predictive ability**. This decline **can be offset if ratios are combined with market-related variables.**

Financial ratios such of Liquidity, Leverage and Profitability have been considered significant as a good predictor of bankruptcy

- In more recent studies (Delen, Kuzey and Uyar, 2013)[6] related to future performance prediction, two profitability ratios (i.e., Earnings Before Tax-to-Equity Ratio and Net Profit Margin) have a greater impact, followed by the leverage and debt ratios.
- The main question becomes, which ratios to use in the performance prediction of companies and the weights they should have**.**
- **In an internal perspective, Return on Equity** (ROE), followed by **Return on Assets** (ROA) on a smaller degree, features the **most reasonable measurement of a company's overall performance**, in other words, its **efficiency in shareholders' wealth creation** (Oberholzer, 2012)[7].
- **Most market value ratios** (price/book value, its variation price/net asset value, price/cash flow and profit margin) **offer somewhat bounded information regarding a company's operating, profitability and marketability efficiency**.
- Therefore, they are suggested to be grouped together with inconclusive indicators such as price/earnings and dividend yield that feature no meaningful interactions (Oberholzer, 2012)[7].
- Instead, **market-based ratios ought to be used as short-term market indicators as these prove valuable if speculation goals are targeted** (in case an investor aims to sell shares prior to a possible bubble eruption) (Oberholzer, 2012)[7].
- In an **external perspective**, Banking institutions demand a comprehensive breakdown of the company's erstwhile and projected financial position, as part of **credit risk management**. **These ratios enable the assessment of the risk of failing to repay principal and interest.** In addition, nonfinancial variables are added for **estimating client failure**, which elevated classification accuracy from 82,8% to 88,1% in the experiment (Pervan & Kuvek, 2013)[8].
- **Current Assets/Total Assets, Total Debt/Total Assets and EBIT/Total Assets** (Liquidity, Leverage and Profitability ratios respectively) represent ratios that can efficiently feature **valuable informational for prediction of bankruptcy** (Pervan, Pervan & Vukoja, 2011)[9].
- By using a multiple discriminant analysis (Altman, 1968)[10] there is a **greater statistical evidence** when ratios are analysed within a multivariate framework instead of the common sequential ratio comparisons.

The sector analysis establishes the fundamental forces at work in the sector and its overall attractiveness, which becomes fundamental for an objective company analysis

Relevance

It is important to perform an analysis to the sector (macro overview) and company (micro overview) as it enables to establish a coherent strategy and for companies to be able to react to adverse market situations.

Company Analysis

Regarding the **micro perspective**, it involves analysing the company's financial condition, services and products, competitive strategy (how it responds to the external threats and opportunities), among others.

Company's specific elements should be included in this analysis, such as company overview (regarding operations, financials, etc), product/service costs and demand, pricing environment, projected financial statements and financial ratios, etc. **Financial ratios** help to make **comparisons of the specific company to the average of the sector's participants,** being ROE a good example, as it is a function of profitability.

Sector Analysis

The sector analysis, as it assesses the economic and financial condition of a particular sector (i.e. using a top-down approach) in the economy, it allows companies to determine the critical factors that define their success within the sector.

Furthermore, sectors can be classified as cyclical (i.e. materials, consumer discretionary, etc) and non-cyclical (i.e. healthcare, consumer staples, etc), depending on their sensitivity to the business cycles' phases.

In a sector analysis' perspective, the framework **Porter's Five Forces is commonly used to evaluate competition within an industry** (by identifying its weaknesses and strengths) and consequently its profitability attractiveness.

The **sector analysis gives a framework for company analysis,** as the business environment they are part of provide insights about the company's potential for growth, competition and risks associated.

The tourism industry is commonly characterized by ratios as the occupancy ratio, the ARR and the Rev/PAR, but these should be combined with other financial rations in order to fully evaluate the sector's performance

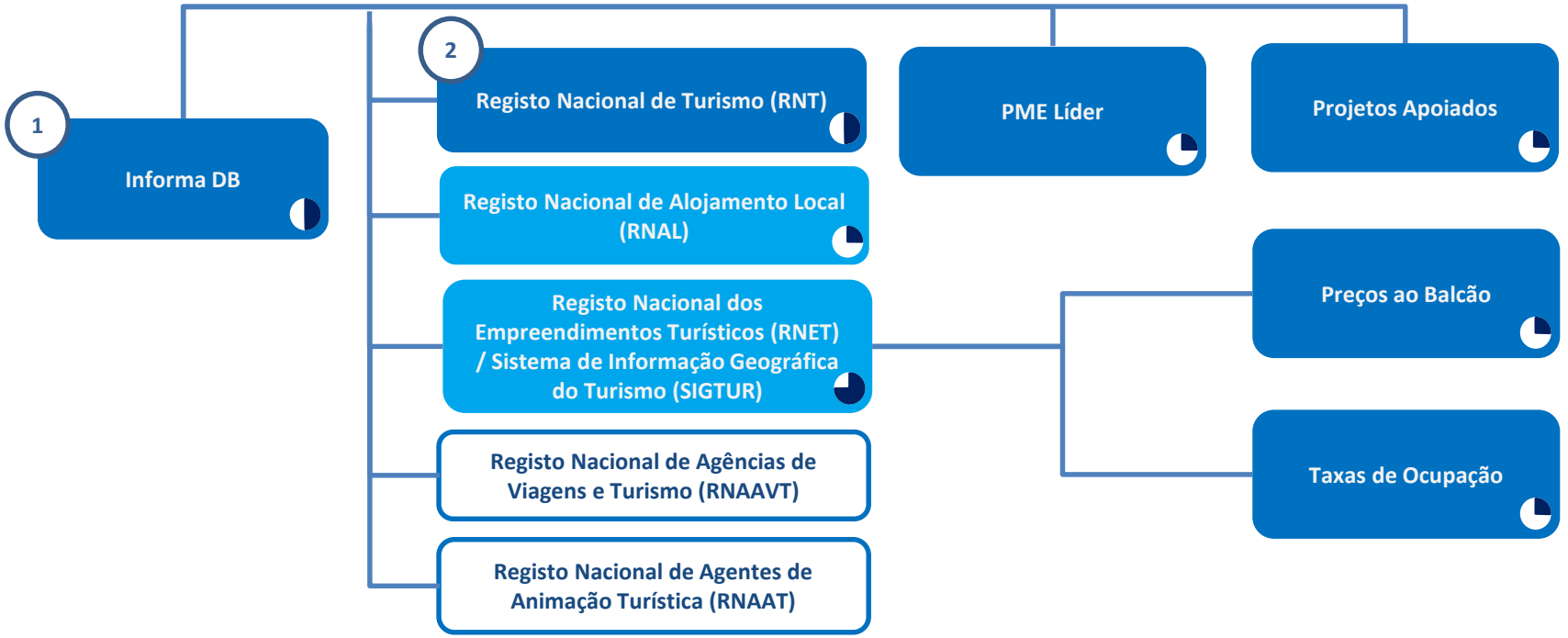
- **Industry-specific ratios** are ratios that are useful only in a specific industry and hence calculated for analyzing entities in that industry only. These ratios are **meaningless for entities in other industries**.
- As the tourism industry is a large field within the service industry, which includes all the accommodation services, travel agencies, recreational services, and even restaurants and cafes, it is extremely important to define a set of financial ratios that can be used to analyze companies across the entire industry.
- The tourism industry is **heavy in fixed and tangible assets**, therefore it requires a very specific set of financial ratios to accurately analyze the industry and come to conclusions based on performance of individual companies.
- The table demonstrates some key performance ratios that are commonly used to characterize the industry, such as the **occupancy rate**, the **ARR** and the **Rev/PAR**. These three financial metrics are usually used together to measure the accommodation sector performance, and commonly found across industry reports to characterize the sector and to facilitate comparisons within the field.
- Despite these ratios are industry-specific, **these should be combined with general profitability, solvency and efficiency ratios**, **to fully evaluate the performance of individual companies**, more specifically those out of the accommodation sector.

Type	Indicators	Description
Characterization	Tourist volumes	Specific indicators that measure industry performance
	Customer volumes	
	Number of rooms	
Profitability	REV/PAR	Accommodation income per available room
	EBITDAR	EBITDA, deducting rent costs
	EBITDA/PAR	EBITDA per available room
	GOP/PAR	Gross operating profit per available room
	NREV/PAR	Net revenue per available room
	TREV/PAR	Total revenue per available room
	Income index per available room	REV/PAR per hotel unit vs. Market REV/PAR
Efficiency	Occupancy rate	% of rooms or beds occupied vs those available
	Multiple occupancy	Average no of occupied beds per occupied room
	Average length of stay	No of room nights sold per guest
	Potential income	Total occupation of a hotel unit with higher tariff
	Yield	Lodging income vs. potential lodging income
	Average rate per guest	Lodging income vs. number of guests
	ARR (or ADR)	Average room rate (or average daily rate)
	Net ARR	Net average room rate
	ARR Index	ARR vs. competitors' ARR

The database used has the data integrated already with financial information and information regarding companies' characteristics

The following databases (that are descripted in the following slides) were given by the TdP at the beginning of the project, which were fully analysed by the group and consequently integrated into the Power BI dashboard and used as a base for all the analysis performed.

Summary/ Data Architecture



Much difficulty Little difficulty

Links

- **Informa DB** **RNAL**
- **Informa DB** **RNET / SIGTUR**

  VAT number; Operating Entity; Address; Locality; Postal Code; Municipality; District; NUTS II

- **PME Líder** **Informa DB**

  VAT number; Name; CAE codes, Year; Turnover; Net Profit; EBITDA; Total Net Assets; Equity; Net Debt; Exports

- **Projetos Apoiados** **Informa DB**

  VAT number; Name; Promoter

- **Preços ao Balcão** **RNET / SIGTUR**
- **Preços ao Balcão** **Taxas de Ocupação**

  Type; Period; Entity Name; Municipality; Classification; Category; Rooms

- **Taxas de Ocupação** **RNET / SIGTUR**

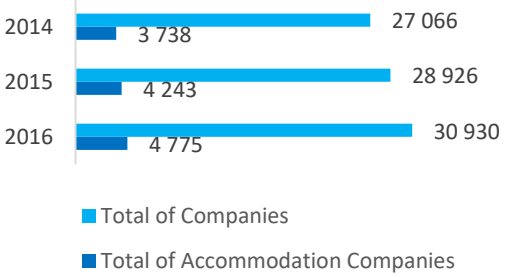
  Year; Establishments; Municipality; Typology; Category; % Rooms; % Beds

The data base from Informa DB integrates Financial Data regarding entities registered in the Tourism sector

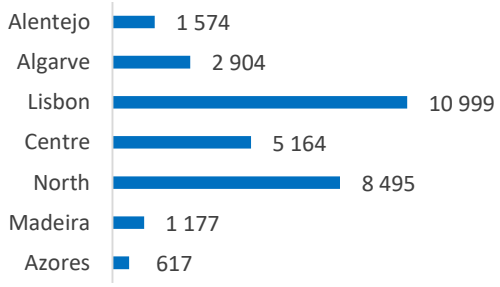
Database	Demonstrações Financeiras – Empresas em Portugal 2014-2016	**Source**	Informa DB	**Data Source**	Informação Empresarial Simplificada (IES) 2014-2016

Sample

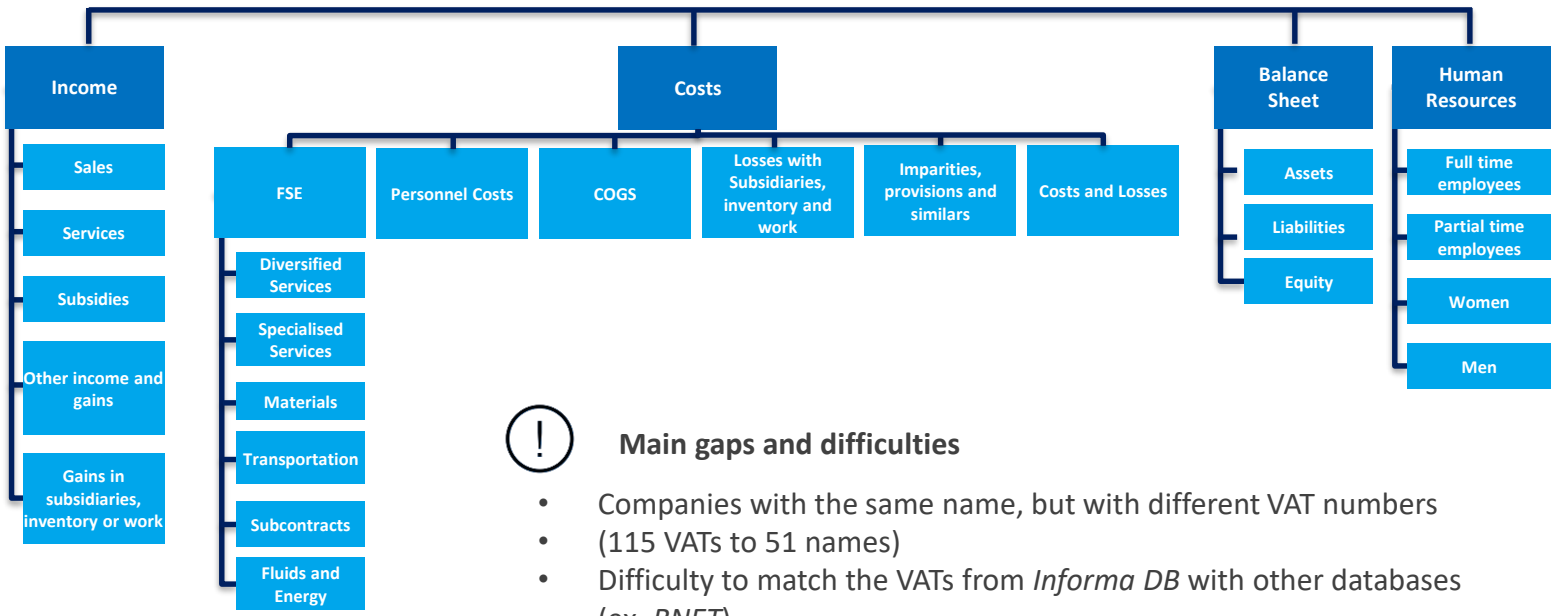
Number of companies per year
(2014-2016; Units)



Number of companies, by region
(2016; Thousands)

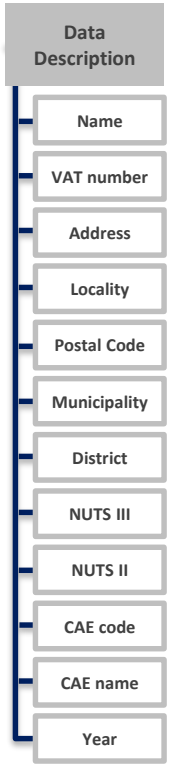


Data Structure



Main gaps and difficulties

- Companies with the same name, but with different VAT numbers
- (115 VATs to 51 names)
- Difficulty to match the VATs from *Informa DB* with other databases (ex. *RNET*)
- Total number of Accommodation companies in Informa DB is different from the one in *Taxas de Ocupação* and *Preços ao Balcão.*

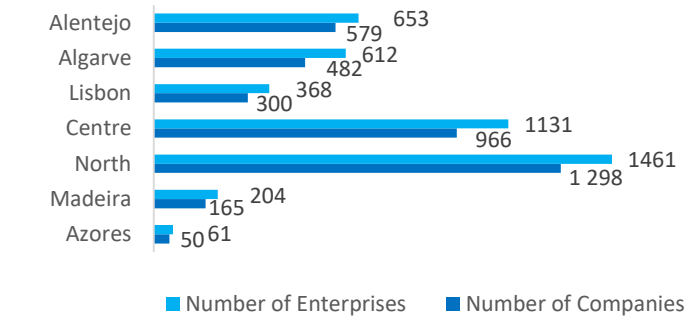


The RNET database included in RNT, encompasses updated data of Tourism projects, 2010-2018

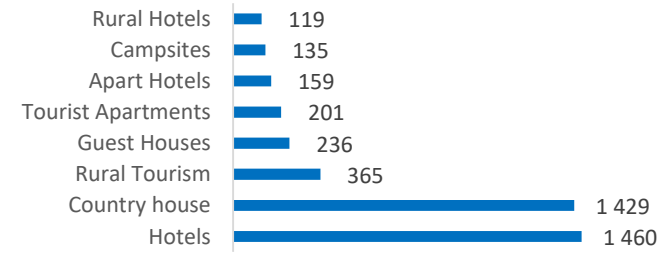
Database	Registo Nacional de Empreendimentos Turísticos	**Source**	RNET	**Data Source**	Registry from RNT's Exploring Entity for Enterprises

Sample

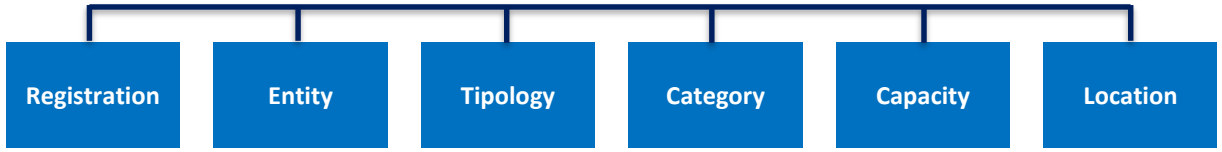
Number of companies and registered enterprises, by region
(Units)



Number of registered typologies
(Units)



Data Structure



Main gaps and difficulties

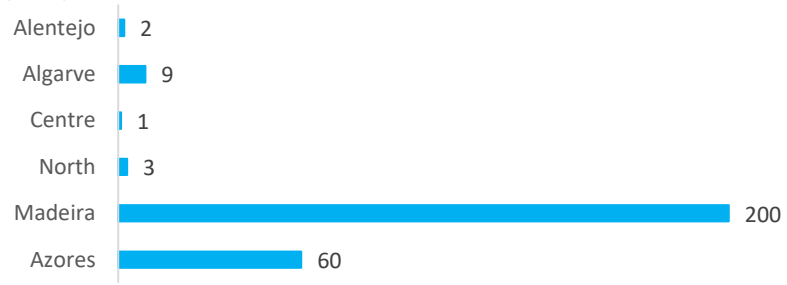
- There are identical VAT numbers belonging to different exploring entities (9 records). The inexistence of proprietary entity also difficult the validation, whereby if we can integrate it perhaps we can arrive to some conclusion regarding these enterprises.
- Also, in regard to VAT number, there are records whose entity names are not consistent for the same number, so it will be necessary to review these cases so that everything is in accordance.
- The fact that the category with the CAE codes is incomplete (35%), made it difficult to cross this database with the one from *Informa DB*, because the typologies defined here do not cross with the descriptions of the listed CAEs' codes, having the file been defined.
- The lack of greater extent of data related with the enterprise, makes it less efficient to cross this database with others as it is always necessary to first resort to *SIGTUR*.

The SIGTUR interactive system includes information regarding the distribution of the touristic offer in Portugal

Database	Sistema de Informação Geográfica do Turismo	**Source**	SIGTUR	**Data Source**	RNET complement

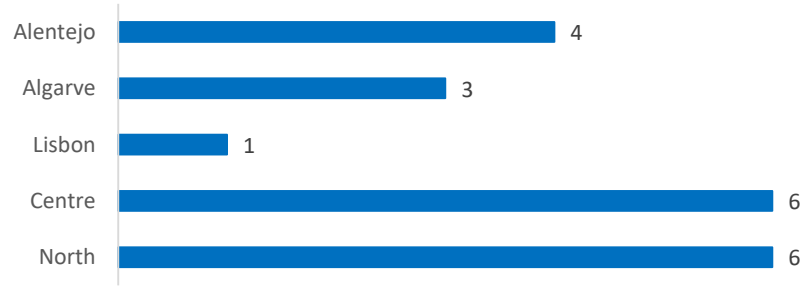
Sample

Nº of registered companies inexistent on SIGTUR
(Units)



Total: 275 companies

Nº of registered companies inexistent on RNET
(Units)



Total: 20 companies

Data Structure

Main gaps and difficulties

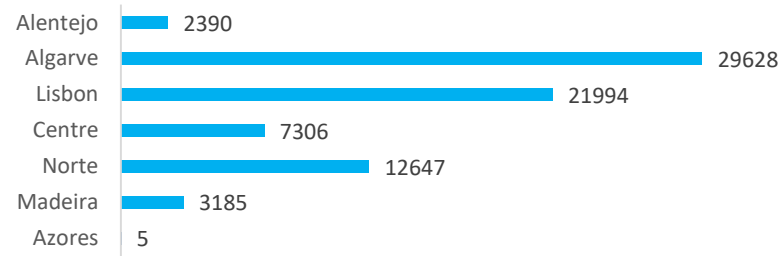
- The inexistence of VAT numbers in this database made more difficult to cross-check it and validate it with RNET's database. Therefore, it would be more efficient if this database had one more column with the VAT numbers of the exploratory entities, allowing a quicker and automatic cross-checking of the databases.
- Within RNET and SIGTUR, for the same registration number, there are 7 companies whose exploratory entities are different from one database to another.
- The same happens for the nº of accommodation units (different in 60 companies), the nº of beds/clients (146), for the districts (10) and for the regions (6).
- The excel column regarding the existent features in the different enterprises was not separated by feature, meaning that there was a huge amount of text within each row. This complicated the analysis as the fact of having, or not, a restaurant was an important factor in the description of the CAE code. Due to this reason, it was impossible to make the count of these specific enterprises in an automatic way.

The RNAL database registered Private Accommodation reported with accommodation and exploring entity-related data

Data Base	Registo Nacional de Alojamento Local	**Source**	RNAL	**Data Source**	Registry from the RNT's Exploring Entity for Accommodation

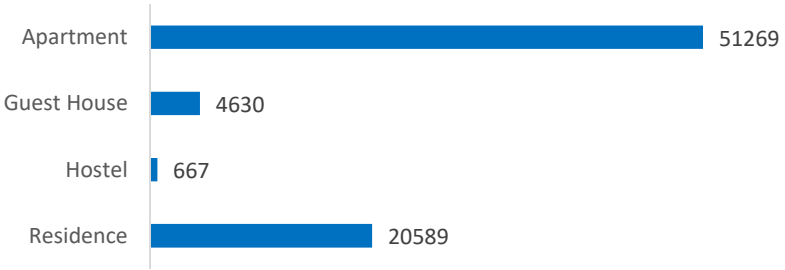
Sample

Number of Registered Companies per region
(Units)



Total: 77,155 companies

Number of Accommodation Types Registered in RNAL
(Number of Users)



Data Structure

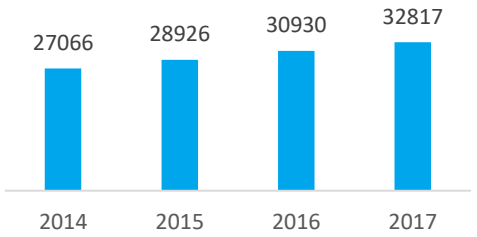
Main gaps and difficulties

- Database fails to display CAE codes, disabling the crossing of information with Informa DB
- Some categories were incomplete with blanks or random numbers instead of qualitative variables:
  - -NUTS II and Exploring Entities - lack of information representing 18% of total registrations. After in-depth analysis, it was possible to understand that the actual information was poorly located, so the database had to be emended. However, there are still 17 registrants missing, in which only 3 of them have VAT numbers;
  - -20 records do not show the name of the accommodation
  - -565 non-existent VAT numbers, equivalent to 1% of registrations
- Given these problems, perhaps the used data export system may not be the most appropriate for managing large amounts of information

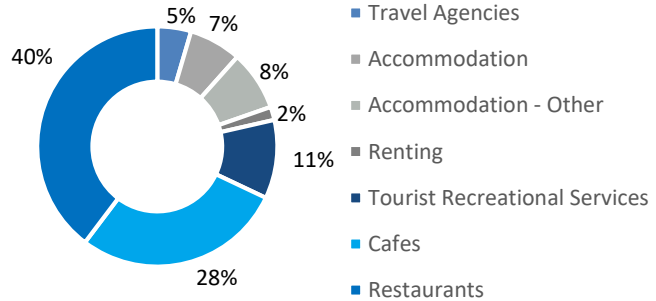
The total number of companies has grown steadily over the years.

- The total number of companies in the industry **has been increasing at a constant pace.** The food and beverages sector accounts for more than a half of the universe and Lisbon and North regions are the ones that dominate the NUTS II cluster.
- The constant movement of companies entering and leaving the market is representative and **impacts the financial indicators analysis**. On average, **17%** of the current sample corresponds to new start-ups and **88%** of the previous year companies remain on the market for another year.
- However, these values were not static or constant. In fact there is an increase in the flow of movements, either **to enter the market or to withdraw from it**. In the present four years analysis, the number of companies to cease activity doubled, and total number of new VAT's to integrate the databases experienced a growth of 31%.
- It should be noted that, despite the high and growing number of companies closing or not reporting activity, the new ones are **more than enough to cover** and exceed the hit on the total sample size.
- This difference, although very positive and with a growth of 1,5% in the analysis period, decreased by 6% in the last year.

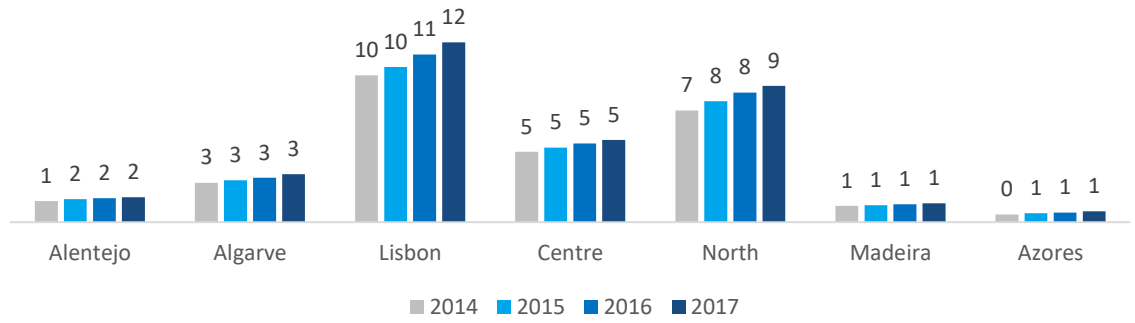
Number of Companies per Year
(2014-2017; Units)



Companies Universe, by tourism subsector
(2014-2017; %)

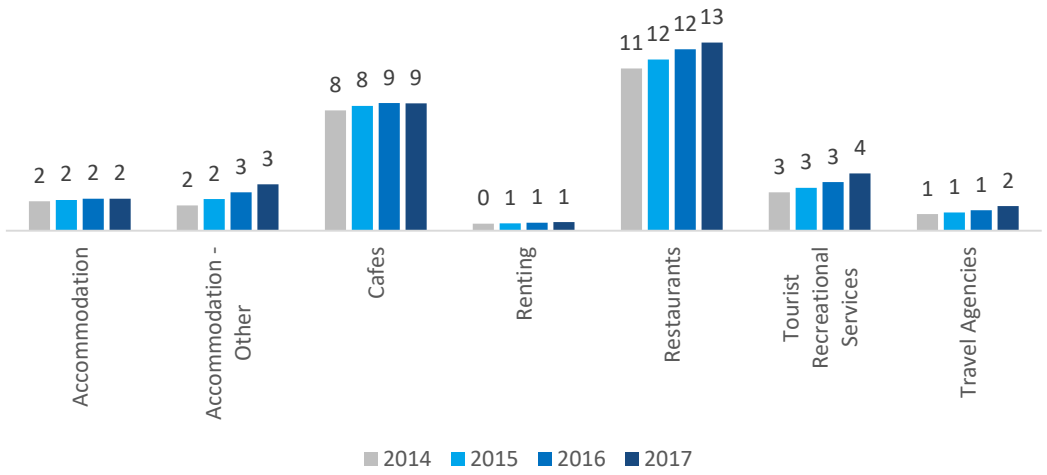


Number of Companies, by region
(2014-2017; Thousands)

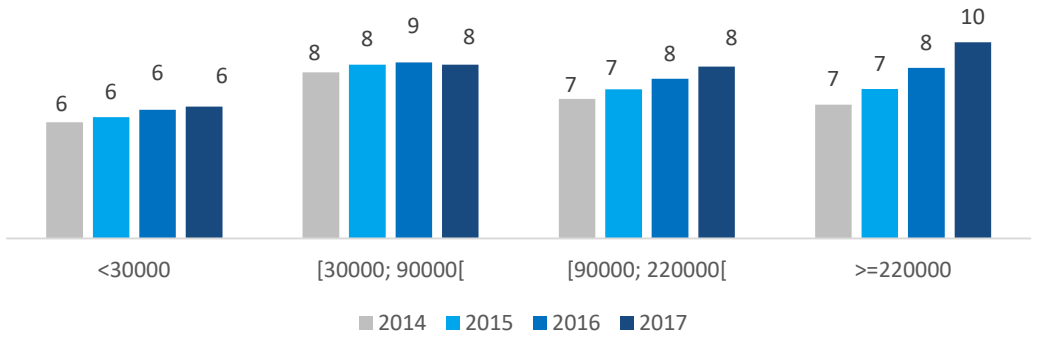


The highest growths occurred in the Azores, Accommodation – others and for business volumes >= 220.000

Number osf Companies, by tourism subsector
(2014-2017; Thousands)



Number of Companies, by turnover
(2014-2017; Thousands)



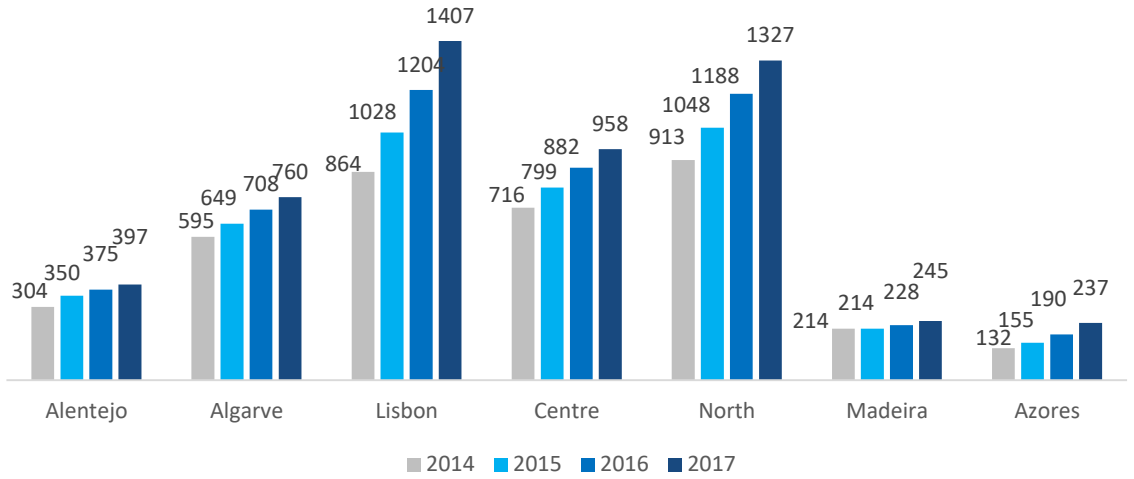
Main Conclusions

- The big bet was in the Accommodation – others category, which with a 9% contribution, on average, to the global, grew 82%, a figure that translates itself into just over 1,4 thousand occurences.
- As expected, the Restaurants, Cafes and Accommodation categories experienced the smallest evolution, despite the fact that the first was the one to introduce the largest source of new firms to the total sample (1,8 thousand).
- To point out that, despite the great movement of entries and exists in the market, there are **more and more companies with higher turnovers**. At the beginning of the analysis, the highest concentration of companies was at the lower and central levels ([30.000; 90.000[mostly – 30%), however, as a result of the large growth, at the order of 47%, the **highest category** (>= 220.000) **now holds the largest share of the occurrences** (29%) and has a difference of 3.3pp of the following portion. There was also a decrease of 10pp in the sample percentage attributed to turnovers of less than 30.000€.

The highest growth of the number of companies occurred in the Azores, followed by Lisbon and the North

- The Accommodation as a whole represents, on average, **15% of the global market**, and **Lisbon and the North account for half of this universe**. The largest increase in the number of registered VAT's occurred in the Azores (80%), however, it was in the North and in Lisbon that the great evolutions were felt and translated into, approximately, 0,5 thousand incremental companies for each one.
- The 4 main databases used in the present analysis were the following, *Preços ao Balcão*, *Taxas de Ocupação*, *RNET* and *Informa DB*. **The last one is the one with the largest number of companies** associated, totaling 125.698, of which 20,072 correspond to the Accommodation category, followed by the *RNET* with about 14 thousand and lastly the *Preços* and *Taxas* whose values are around 4 e 4,5 thousand. On average, the interception of bases two by two retains between 800 and 1.000 companies, only the two largest bases record around 2.000 and **it is from this crossing that results the EBITDA/PAR**.
- It was necessary to use 3 different attributes (VAT, year and enterprise) to make a **clear and precise data interception with a smaller margin of error**.
- Even so, obstacles arose, VAT's nonexistent in the *Taxas* and *Preços* databases, so that it was necessary to proceed with the **removal of zeros that skewed the values** resulting from the analysis performed, and a problem more difficult to solve, unequal or poor completion of the field referring to the enterprises name.

Number of Companies, by region
(2014-2017; Units)



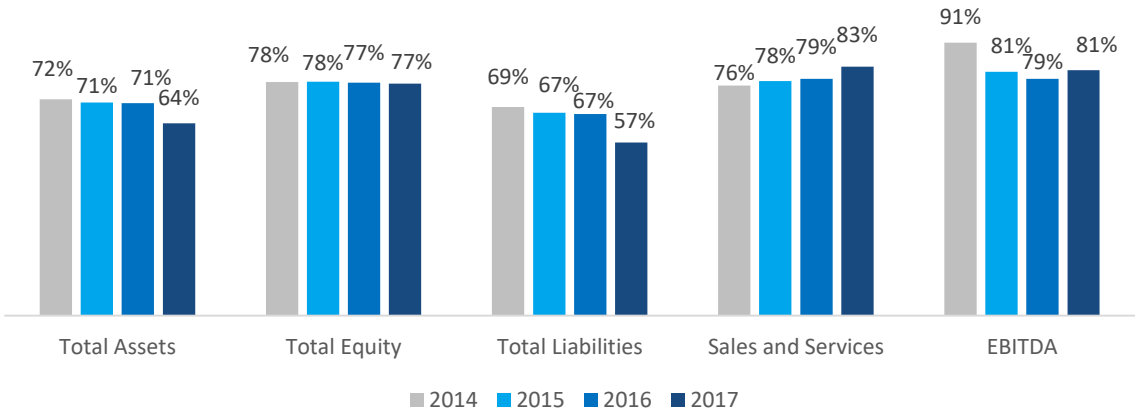
Average Annual Number of Companies resulting from the interception of databases
(2014-2017; Units)

	Preços ao Balcão	*Taxas de Ocupação*	*RNET*	*Informa DB*
Preços ao Balcão		998	858	811
Taxas de Ocupação	998		827	803
RNET	858	827		2011
Informa DB	811	803	2011	

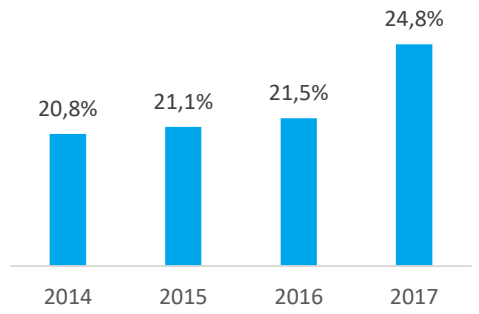
70% to 80% of the Informa DB's total items are covered when combined with RNET's information

- **The interception of *Informa DB* with *RNET*** requires only the **crossing between** two factors, the **year and the VAT's number,** from which resulted a total of 8.045 companies. When intercepting the two databases, there were companies lost in *RNET* and in *Informa DB*. In ***RNET***, more than **20%** of the total number of rooms is **not accounted** for the analysis, per year, a % that grows each year, specially in that last, as went from increases of less than a half pp to more than 3 in a single year.
- When applying a % based on the number of rooms of each enterprise to the same VAT number, **it is possible to have a proxy** for the various fields of *Informa DB* by the enterprise's NUTS II, instead of the company's headquarters (HQ) location.
- This method allowed us to obtain the % of I*nforma DB*'s companies total that can be covered with this crossing and analysis, which rounds the **70% and the 80%.**
- By linking NUTS II, it can be concluded that in the first two years, **80% of the EBITDA of the enterprises comes from the HQ location**, and as such the indicators calculation based on the headquarters region, turns out to be a relevant approximation, however, the same does not happen in the following years. This scenario results from the fact that **more VAT's HQ have more enterprises and greater geographic distribution, contributing to the results dispersion**. It should be noted that 50% of the EBITDA comes from the HQ location, making the total analysis biased and with a greater propensity for errors and misinterpretations.

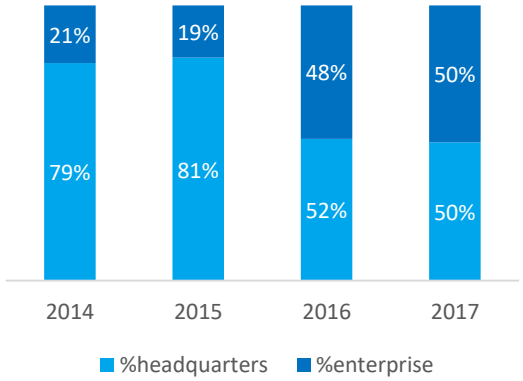
Percentage retained after the interception between the *RNET* and the *Informa DB*
(2014-2017; %)



Percentage of rooms not accounted
(2014-2017; %)



EBITDA, by region
(2014-2017; %)

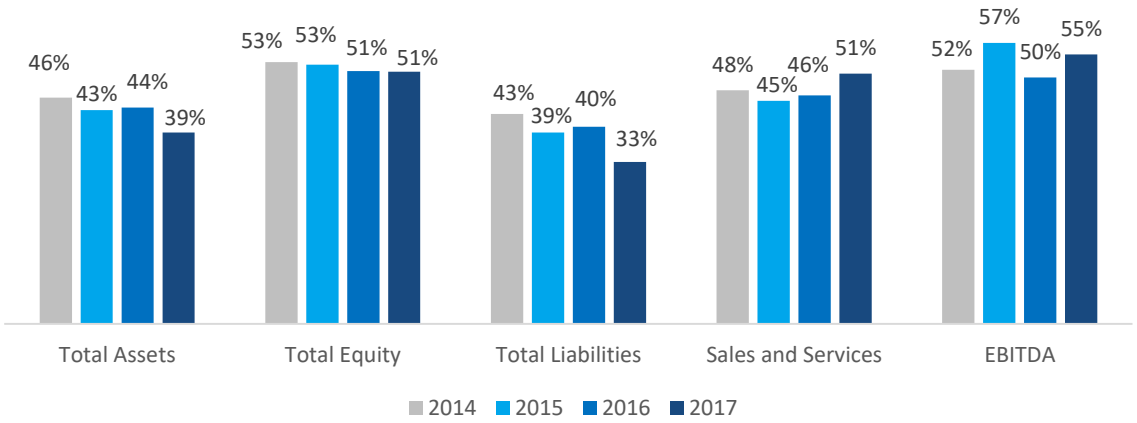


The accuracy and suitability of the usage of the headquarters NUTS II as a reference to the indicators computation, according to this analysis, turns out to be minimal

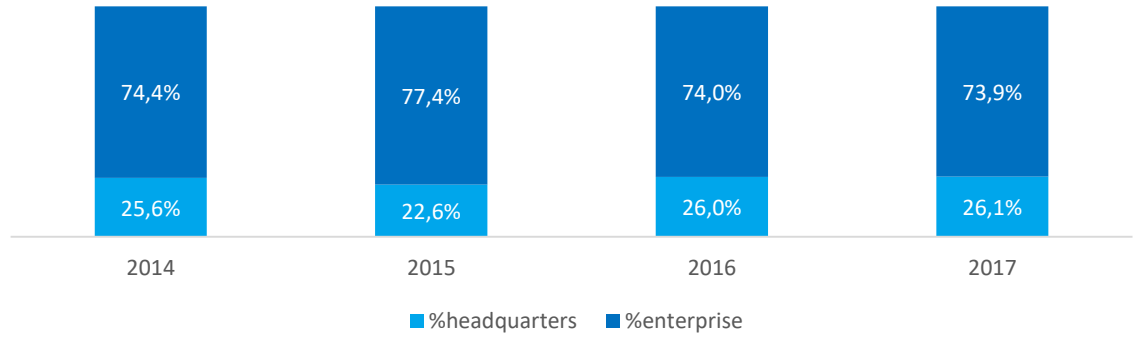
- The **results obtained when crossing the 4 databases are quite different** from the coverage values between the *RNET* and the *Informa DB*. With a total of 2.594 companies, which account the total of the years in analysis, only represent 61% of the smaller database (*Taxas de Ocupação*), the information retention % stops rounding the **70% and 80%, to vary between 40% and 50%**, which means, **that more than half of the sample is lost with the interception of all the databases**. Approximately, 6pp, on average, of the total of each rubric is lost due to the zeros in the occupancy rate of the rooms provided.

- In addiction to this decrease, **the accurancy and adequancy of the headquarters NUTS II** as a reference for the indicators computation, according to this analysis, **is minimal**, with an average of 75% of revenue records at the place of business, which differs from its headquarters. Such scenario **goes aggainst the conclusions reached** in the previous analysis for the first two years and **deteriorates the remaining ones expectations**, which means that a large proportion of the lost companies owned their enterprises or at least the ones that report higher numbers in the region of its head office.

Percentage retained after the interception between the 4 Databases
(2014-2017; %)



Profits per NUTS II
(2014-2017; %))



The financial performance of the tourism and the accommodation sectors are measured through the use of profitability, solvency and efficiency ratios

- In order to characterize and get a different perspective over the industry's financial performance, a **set of different ratios was selected, as presented in the table**.
- The analysis is divided in two sections, the first part evaluates the financial health of the tourism sector in Portugal, while the scope of the analysis in the second part considers the performance of the accommodation services.
- The objective is to give a broader perspective of the industry performance in the first part, and having a more detailed analysis in the accommodation sector, where the EBITDA/PAR emerges as the only industry-specific ratio presented.
- This ratio analysis covers the operating and financial aspects of the tourism industry companies through three different categories (profitability, solvency and efficiency), by **comparing seven regions of Portugal over a period of 4 years** (2014-2017).
- The use of **profitability ratios** were important to assess the industry companies' ability to generate earnings in relation to their associated expenses.
- **Solvency ratios** measure the companies' ability to meet their debts and obligations, and whether their cash flows are able to meet their short- and long-term liabilities.
- **Efficiency ratios** analyze the operating performance, how well the industry companies are using their assets and liabilities in order to generate income.

	Category	Indicators	Description
Tourism Sector	Profitability	Return on Assets	Company's assets capacity in generating revenue
		Return on Equity	How well investments generate earnings growth
		EBITDA/Sales	% of earnings remaining after operating expenses
		Gross Value-Added	Service contribution towards creating profit
	Solvency	Net Debt/EBITDA	How many years to pay back its debt
		Financial Autonomy	Extent of assets supported by company's equity
	Efficiency	ESS/Total Costs	% of costs assigned to External Services & Supplies
		Sales/Associate	How much each employee generates for the firm
Accommodation	Profitability	Return on Assets	Company's assets capacity in generating revenue
		EBITDA/PAR	EBITDA generated per available room
	Solvency	Net Debt/EBITDA	How many years to pay back its debt
		Financial Autonomy	Extent of assets supported by company's equity
	Efficiency	ESS/Total Costs	% of costs assigned to External Services & Supplies
		Sales/Associate	How much each employee generates for the firm

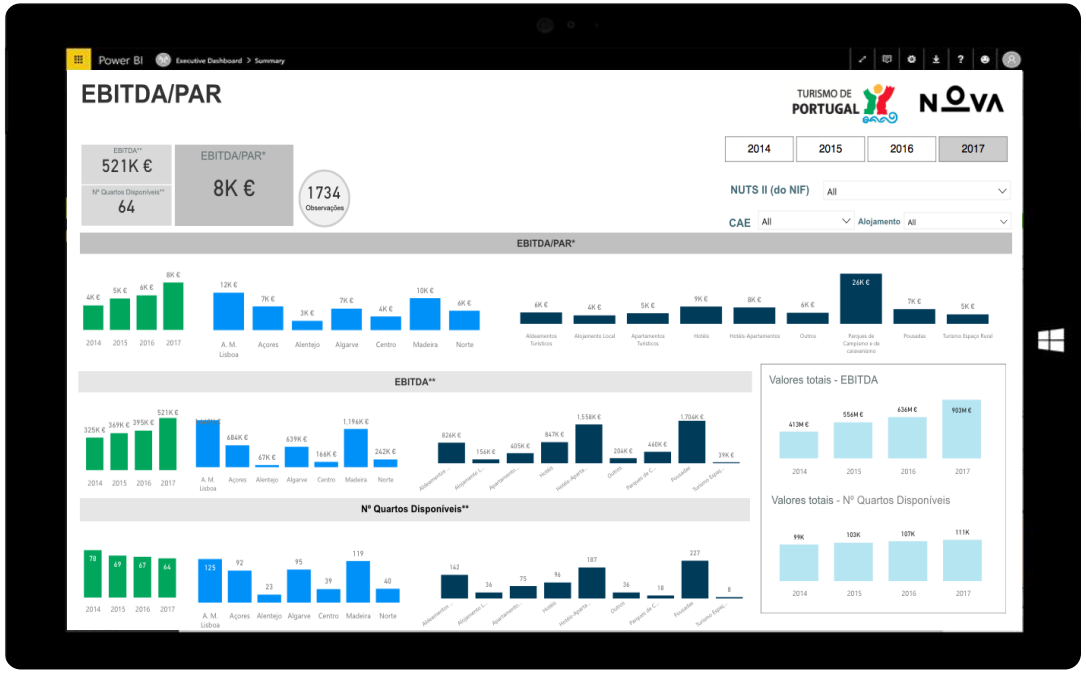
Chapter III

Dashboard

The development of a Power BI dashboard was crucial for organizing and simplifying the large data contents, but more importantly, its interactive features really enhanced the perspective and quality of the analysis

- As previously mentioned, alongside the tourism industry financial report **a *Power BI* dashboard was also developed** and then provided to TdP.
- *Power BI* is a business analytics tool launched in 2016 by Microsoft, which enables **interactive visualizations** of data due to its business intelligence capabilities.
- After having access to TdP Excel databases (source), the development of a Power BI dashboard was essential to perform the analysis, **as this tool provides the ability of simplifying and organizing large data contents**.
- The dashboard included a specific analysis for each ratio selected, so that anyone could **easily make an extensive and detailed data analysis**, arriving to relevant conclusions **without having to access any Excel file**.
- Through the interactivity of this tool, TdP could assess all the information provided with a different perspective and perform global, regional and sectorial analysis for their own purposes.
- The ultimate objective was to attach the dashboard within TdP website and make it available by publicly sharing these industry's financial insights.
- The dashboard was delivered with its respective database, so it can be kept up to date in the future, as new yearly data becomes available and later easily integrated.

Power BI dashboard, an illustrative example
(EBITDA/PAR – Ratio Overview Analysis, Weighted Average)



The Power BI dashboard provides an overview analysis, a turnover analysis and two cluster analysis for each ratio. In addition, each type of analysis has a standard format to keep consistency across the different ratios

- The *Power BI* dashboard was designed to have **a standard display** throughout the different ratios. In this concern, **each ratio has a page that displays an overview analysis and a turnover analysis, plus two cluster analysis** - specifically requested by TdP - the supported projects by TdP analysis and the SME Leader analysis.
- The **ratio overview analysis is split in two pages**, both of them have the same page format, with the difference that in regards to the ratio's numerator and denominator, one displays the total values and the other the average values per company.
- The rationale behind the format of these two pages is simple, the first row of graphs analyzes the ratio itself, the second its numerator, and the third row its denominator.
- As per row, the user disposes of one graph that analyzes the ratio over 4 years, one that exhibits its performance throughout the **different regions**, and other that analyzes the ratio across the **different tourism subsectors**. Also, the latter also includes a **drill-down for a graph of the accommodation subsectors**.
- The three boxes on the left side of the header display the global performance of the ratio, plus its numerator and denominator, depending on what the user selects in the dashboard, either through the filters or by clicking on the graphs' columns.
- **The filters** allow the user not only to set the year(s) to be considered for the further analysis, but also what region(s), tourism subsector and accommodation subsector.

Power BI dashboard, an illustrative example
(EBITDA/Sales – Ratio Overview Analysis, Absolute Values)

The filters that exist throughout every page leverage the dashboard flexibility, which ultimately will allow the development of more detailed analysis and enhance the user interactive experience

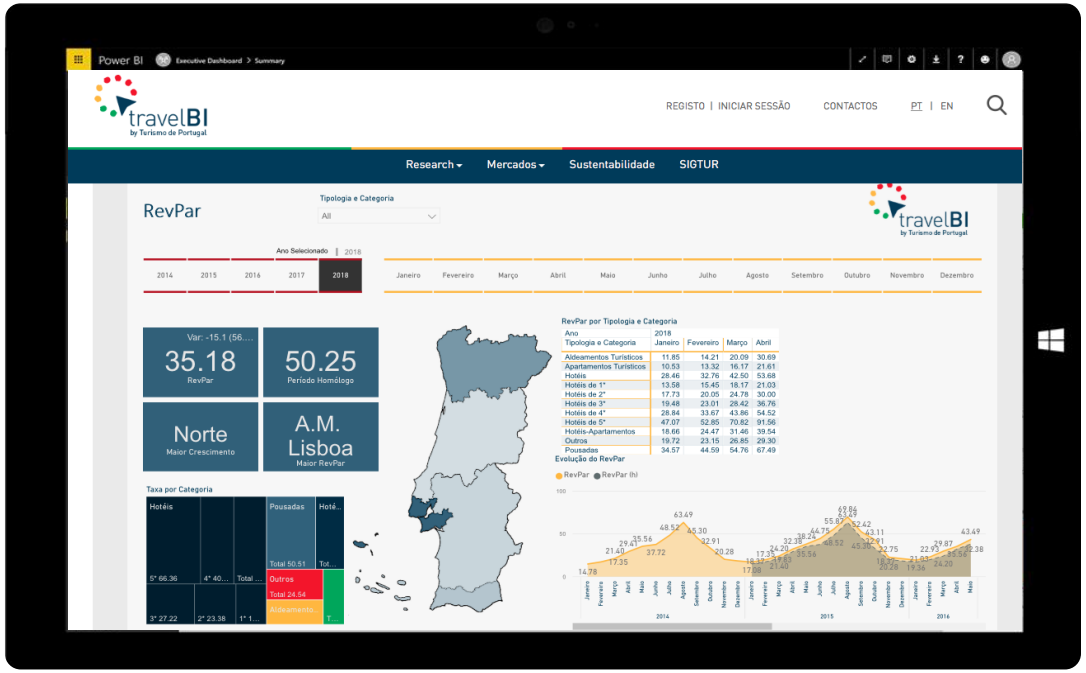
- **The turnover analysis is divided in 4 quartiles**, each one is represented through a column. Within each column there are two graphs, the upper graphs exhibit the ratio performance throughout the regions, and the bottom graphs analyze the ratio across the different tourism subsectors.
- On the left side of the header there is a graph that displays the global ratio performance over the years (2014-2017), and four boxes, **each of them determine the ratio for each quartile on a specific year**, as selected on the right side.
- Apart from the possibility to set the year of analysis, the user can also choose which **tourism and/or accommodation subsector** want to analyze through the filters.
- The supported projects analysis by TdP and the SME Leader analysis have the same page format, even though are analyzed in separated pages.
- Both have two main graphs, on the right, in which one analyzes the ratio by region and the other the ratio by tourism subsector. The tiny graphs on the left concern the ratio's numerator and denominator.
- **Every graph** on these pages **make the comparison** between the supported and non-supported projects ratio performance as well as SME Leader vs. non-SME Leader.
- The header on these pages exhibit the same filters as in the turnover analysis.

Power BI dashboard, an illustrative example
(Financial Autonomy – Turnover Analysis)

Integrating the Dashboard with the Travel BI by TdP, helped to display the information regarding the Tourism sector in a more concise and integrated process

- ***Travel BI* is the Turismo de Portugal database for tourism statistics, trends and market analysis.** This tool provides information related with the tourism industry in Portugal, but also 24 other foreign markets that impact the Portuguese market.
- The tool allows users to search for information related to the tourism industry, such as statistics of accommodation, tourism employment, and market trends in Portugal and abroad. This statistics are provided in an interactive fashion, as through other *Power BI* dashboards or access to SIGTUR, a system that enable users to access the geographical distribution of the touristic supply.
- In a **practical perspective**, as the *Power BI* dashboard created allows for interactive and intuitive statistics visualizations, as those existing within Travel BI used by TdP, the integration of this project within it helped to complement their existing tourism industry statistics.
- In a **content perspective**, and in regard to the subject of the project, the information provided through the *Power BI* dashboard gives additional information regarding the Tourism sector in an interactive and concise way, as provided in *Travel BI*, but in this case exhibiting financial ratios, which are fundamental to characterize the sector and for business managers to make more knowledgeable decisions.

Travel BI used by TdP, an illustrative example
(Existent Power BI dashboard – REV/PAR)



Return on Assets – Ratio Overview Analysis, Weighted Average Page

Ratio Numerator (simple average per company)

Ratio (weighted average)

Ratio Denominator (simple average per company)

Ratio Graphs

Numerator Graphs

Denominator Graphs

Year Filter

Other Filters

Absolute (total) Values Graphs

https://bit.ly/2F3RXiF

Return on Assets – Ratio Overview Analysis, Absolute Values Page

Ratio Numerator (Total Value)

Ratio (weighted average)

Ratio Denominator (Total Value)

Ratio Graphs

Numerator Graphs

Denominator Graphs

Year Filter

Other Filters

https://bit.ly/2F3RXiF

Return on Assets – Turnover Analysis

Ratio Value Over the 4 Years

Ratio Value for each Quartile

Regional Graphs

Tourism Subsector Graphs

Year Filter

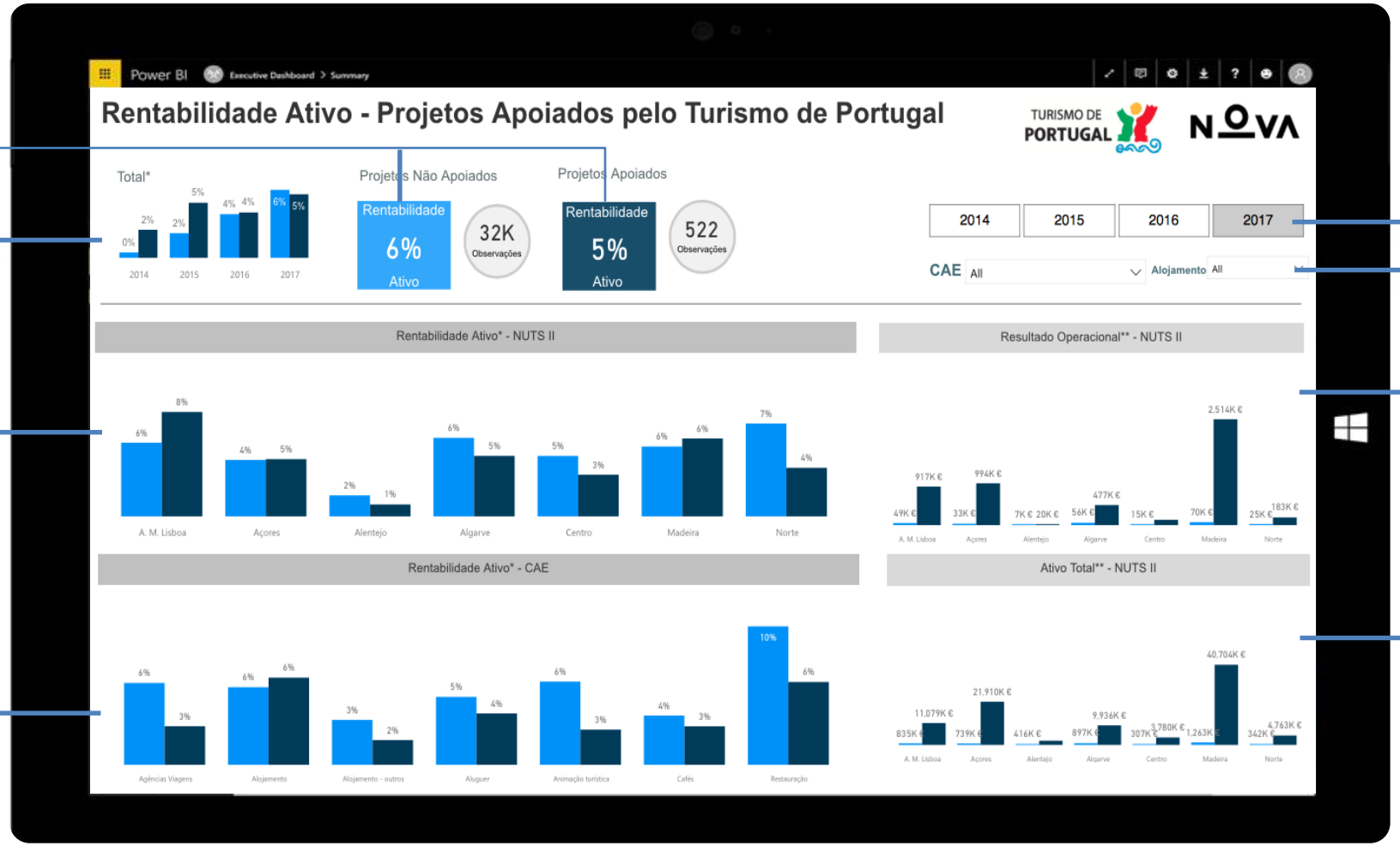
Other Filters

Quartile

Quartile

https://bit.ly/2F3RXiF

Return on Assets – Supported Projects Analysis by TdP



Ratio Value for Non-Supported and Supported Projects, respectively

Ratio Value Over the 4 Years

Ratio Regional Graph

Ratio Tourism Subsector Graph

Year Filter

Other Filters

Ratio Numerator Graph

Ratio Denominator Graph

https://bit.ly/2F3RXiF

Return on Assets – SME Leader

Ratio Value for Non-SME Leader and SME Leader, respectively

Ratio Value Over the 4 Years

Ratio Regional Graph

Ratio Tourism Subsector Graph

Year Filter

Other Filters

Ratio Numerator Graph

Ratio Denominator Graph

https://bit.ly/2F3RXiF

Chapter IV

Analysis

Lisbon

Comparative Analysis, Annual Development 2014-2017

		2014	2015	2016	2017
Tourism Sector	Return on Assets	1%	3%	4%	6%
	Return on Equity	-3%	3%	7%	14%
	EBITDA/Sales	11%	14%	15%	17%
	Gross Value-Added (thousands of €)	121	130	142	157
	Net Debt/EBITDA	6.4	5.1	4.1	3.0
	Financial Autonomy	27%	28%	29%	30%
	Sales/Associate (thousands of €)	55	56	59	62
Accommodation	Return on Assets	1%	3%	3%	5%
	EBITDA/PAR (thousands of €)	4	5	6	8
	Net Debt/EBITDA	10.0	7.2	6.0	4.2
	Financial Autonomy	31%	33%	34%	37%
	Sales/Associate (thousands of €)	55	58	62	67

Comparative Analysis per Region in 2017

		Alentejo	Algarve	Lisbon	Centre	North	Madeira	Azores
Tourism Sector	Return on Assets	-1%	6%	6%	4%	7%	6%	4%
	Return on Equity	-3%	13%	16%	9%	18%	12%	8%
	EBITDA/Sales	10%	20%	19%	14%	13%	22%	21%
	Gross Value-Added (thousands of €)	79	226	194	94	120	286	148
	Net Debt/EBITDA	10.4	2.8	3.3	3.3	2.1	2.2	2.1
	Financial Autonomy	13%	35%	27%	32%	30%	41%	45%
	Sales/Associate (thousands of €)	48	59	71	48	60	62	53
Accommodation	Return on Assets	0%	5%	6%	4%	6%	6%	4%
	EBITDA/PAR (thousands of €)	3	7	12	4	6	10	7
	Net Debt/EBITDA	20.2	4.1	4.4	4.5	3.9	2.3	3.2
	Financial Autonomy	11%	38%	36%	37%	35%	46%	45%
	Sales/Associate (thousands of €)	47	66	82	46	59	69	40

Chapter IV (part I)

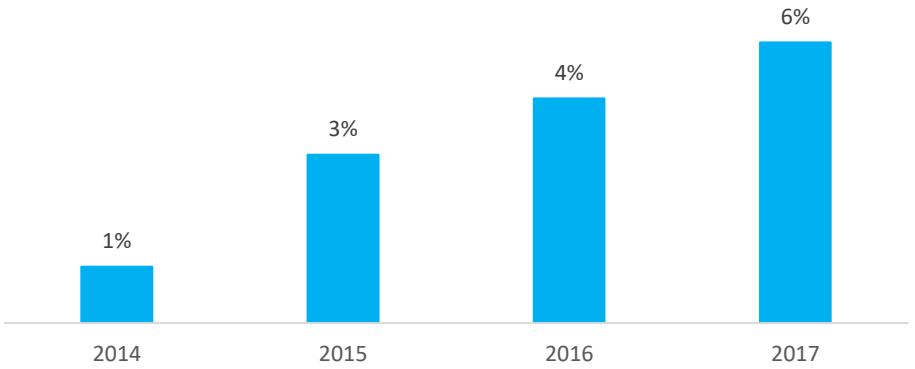
Tourism Sector


Porto

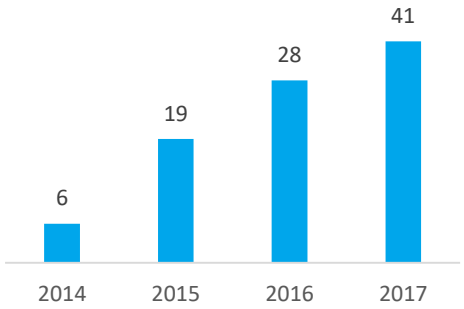
The rate of Return on Assets grew over the years, exhibiting its higher value in 2017

- **The average rate of return on assets is 3%,** whereas the average EBIT and the average total assets per enterprise is 24k € and 738k€, respectively. The sample analyzed was composed by 120 thousand enterprises.
- **The rate of return on assets has been growing on, showing its highest value in 2017.** From 2014 to 2015, this ratio increased 2 pp, increasing 1 pp in 2016 and again 2 pp in 2017, achieving therefore the value of 6%.
- This gradual increase in the ROA in Portugal comes from a **successive rise in the EBIT of the companies over the years**, which had its higher shifts between 2014-2015 and 2016-2017 (13k€). The enterprises' EBIT increased 13k€ in 2015, 9k€ in 2016 and again 13k€ in 2017, achieving a value of 41k€. This is the highest value of EBIT, which explains the greatest value of the ROA in that year. The **total EBIT value** (not the average of the enterprises) also showed an **increasing pattern.**
- Relatively to the average of the total assets, **it presented a decreasing tendency** between 2014 and 2017, having its highest decline in 2017, also contributing to the high value of ROA that year. However, when considering the **absolute value of the total assets**, it is verifiable that it exhibits **gradual increases over the years.**

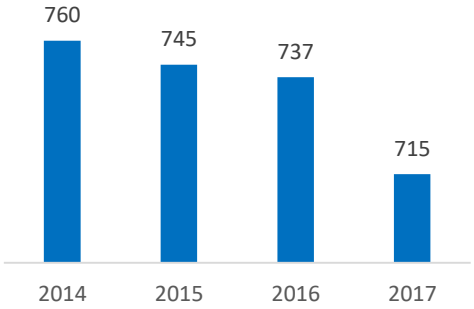
Return on Assets (average)
(2014-2017; %)



EBIT (average)
(2014-2017; Thousands of €)



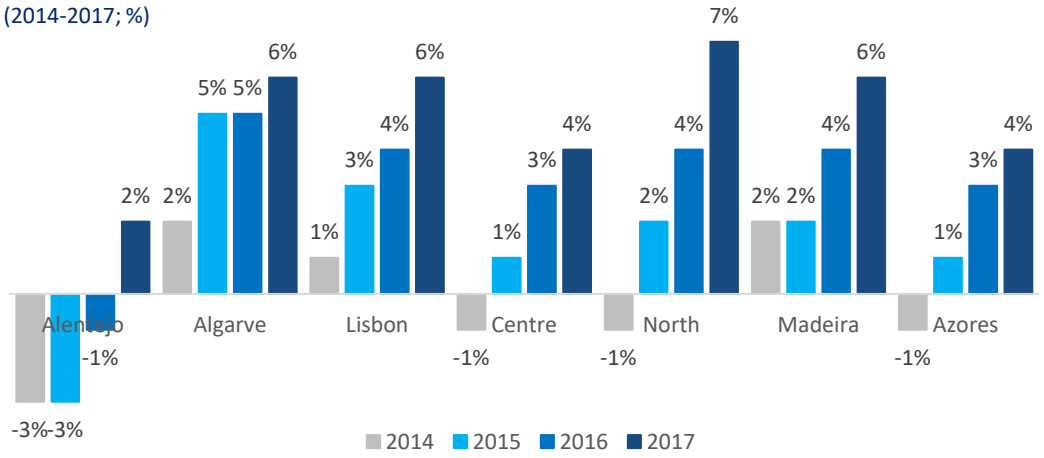
Total Assets (average)
(2014-2017; Thousands of €)



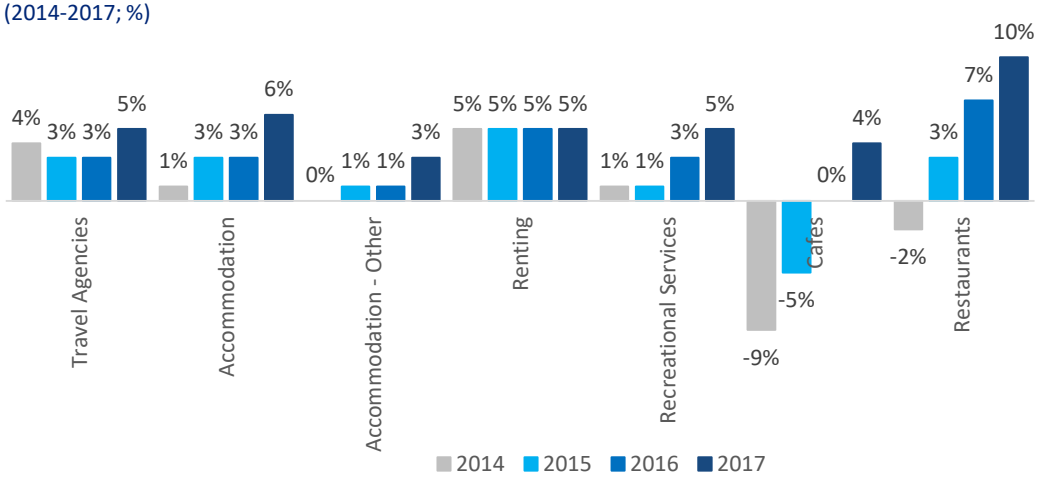
Return on Assets = EBIT / Total Assets

For most of the regions and Tourism subsectors, ROA exhibitis growing trends

Return on Assets, by region
(2014-2017; %)



Return on Assets, by tourism subsector
(2014-2017; %)



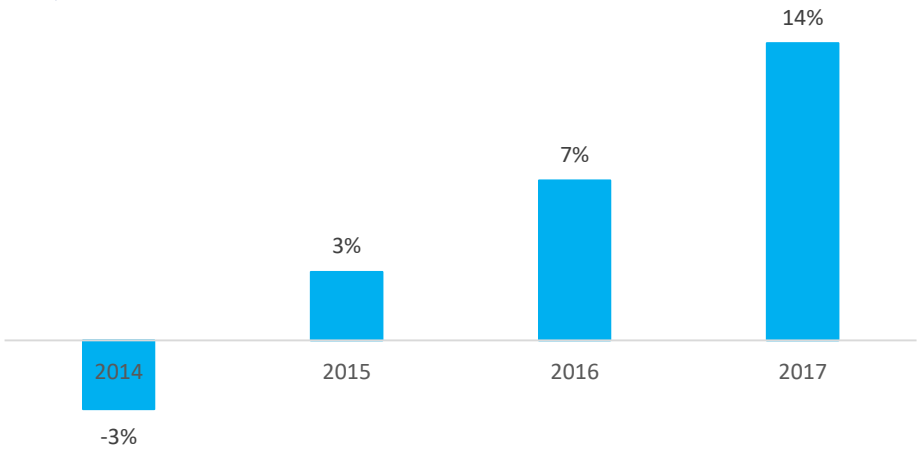
Main Conclusions

- The rate of return on assets **increases continually throughout the years** for all the regions. This increase, on average, is around 5 pp.
- In 2017, **all Portugal's regions present positive values of ROA**, with the North exhibiting a ROA value above the average (7%).
- Except Alentejo, every other region **presents positive values for ROA since 2015 onwards**. Alentejo demonstrated negative values until 2017, mainly due to the **poor performances of the companies within the Accommodation subsector** in that region.
- All Tourism subsectors present **positive tendencies in their ROA** between 2014 and 2017.
- The **Cafes and Restaurants** display the highest changes, with their ROA increasing 13 pp and 12 pp, respectively, between 2014 and 2017.
- In 2017, the value of ROA for the **Restaurants** is above average (10%) with the subsectors **Accommodation - Other and Cafes** being bellow that average (3% and 4%, respectively).
- The ROA for the **Renting remains constant** throughout the years (5%).

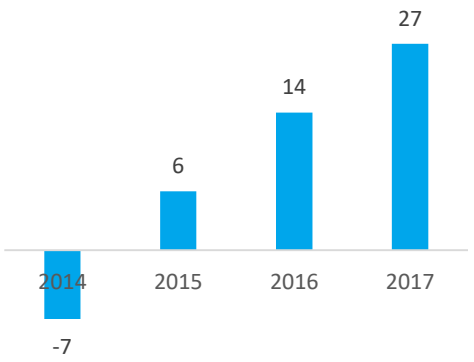
The ROE exhibited a growing trend over the years, along with companies' net income

- **The average rate of return on equity is 5%,** whereas the average net income and average equity per enterprise is 11k€ and 200k€, respectively. The sample analyzed was composed by 120 thousand enterprises.
- **The rate of return on equity has been growing over the years, achieving its highest result in 2017.** From 2014 to 2015 this ratio increased by 6 pp, increasing 4 pp in 2016 and 7 pp in 2017, exhibiting the value of 14% in this last year.
- This increase of the ROE in Portugal is subsequent to the **consecutive increase in the net income of the enterprises over the years**, being the highest shifts between 2014-2015 and 2016-2017 (13k€). The net income has increased over the years, 13k€ in 2015, 8k€ in 2016 and again 13k€ in 2017, achieving its highest value of 27k€. Taking into consideration the absolute value of the net income of the enterprises, one can conclude that it also exhibits an **increasing pattern.**
- Considering the value of equity, it showed a **decreasing trend** between 2014 and 2017, with the biggest changes happening in 2015 and 2017 (-9k€), also contributing to the increase of ROE. However, when considering its **absolute value**, it is possible to check that the **total equity of the country in the Tourism sector is increasing.**

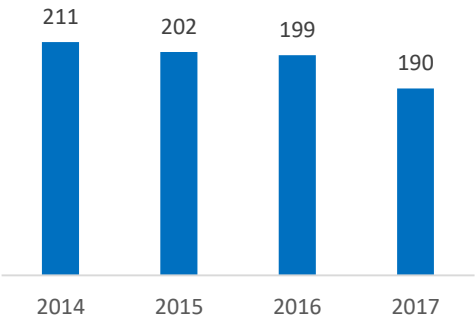
Return on Equity (average)
(2014-2017; %)



Net Income (average)
(2014-2017; Thousands of €)



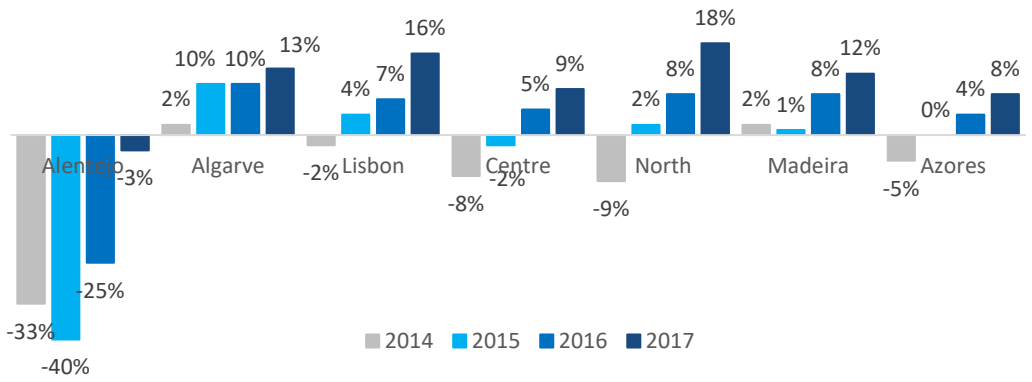
Equity (average)
(2014-2017; Thousands of €)



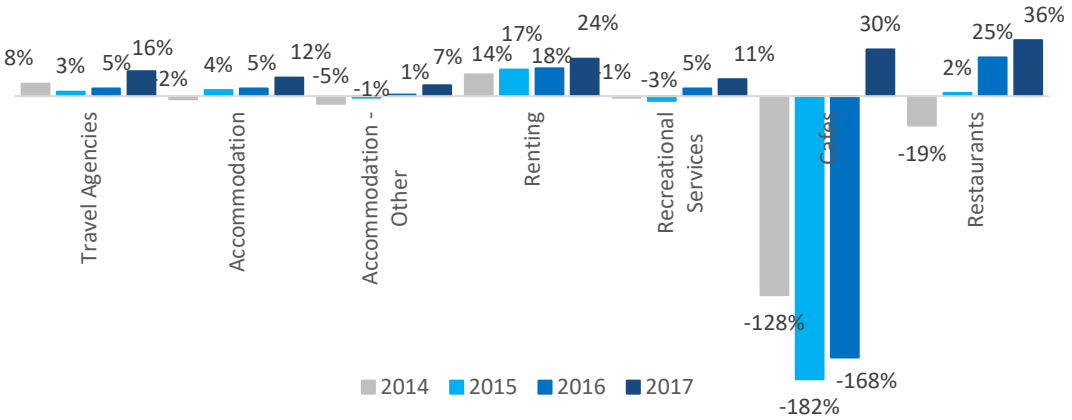
Retun on Equity = Net Income / Equity

The ROE presents growing trends in the majority of the country, as long as for all the Tourism subsectors

Return on Equity, by region
(2014-2017; %)



Return on Equity, by tourism subsector
(2014-2017; %)



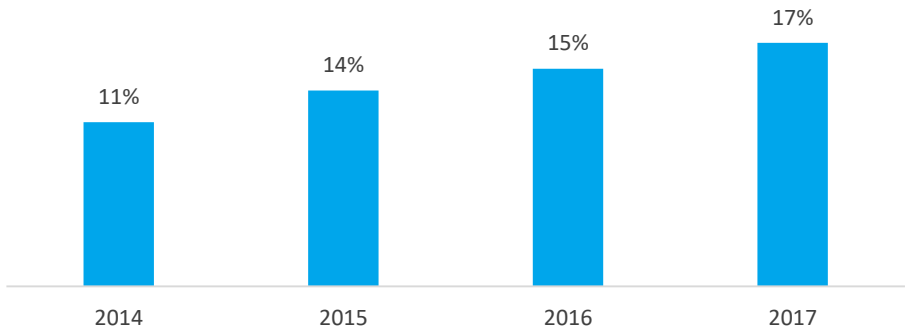
Main Conclusions

- There is a **continue increase of the ROE for all Portugal's regions throughout the years**. This increase is, on average, around 18 pp.
- In 2017, **just Alentejo presents a negative ROE** (-3%), explained by the poor net income exhibited by the companies in that area, mainly in the Accommodation subsector. However, between 2014 and 2017, **this region exhibited an improvement in its ROE of 27 pp**, mainly due to enhancements of the Restaurants and Travel Agencies' subsectors.
- Except Alentejo, **all the regions display a positive ROE from 2016 onwards**, with values around 10% in 2017. The regions of North and Lisbon have a ROE above the average in that year (18% and 16%, respectively).
- All Tourism subsectors presented **growing trends on their ROE**, between 2014 and 2017. One may notice that the **Renting** sector is the most constant one.
- The **Cafes and Restaurants** achieved again the highest fluctuations. However, it is important to notice the steep decrease in the Cafes' ROE between 2015 and 2016, mainly due to **drops in their equity values.**
- In 2017, the value of this ratio to the **Restaurants and Cafes** is well above average, whereas the **Accommodation - Other** stays bellow average.

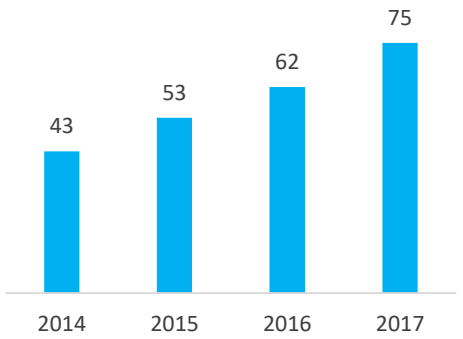
The EBITDA/Sales positive evolution reflects the better companies' management of operating costs

- The **EBITDA/Sales development** within the tourism sector in Portugal **has been very positive** throughout the years, achieving a compound annual growth rate of 48,2% and an average annual growth of 14,1%.
- This positive trend is mainly due to a **sharper growth of the EBITDA when in comparison with sales growth**. Since 2014 the EBITDA has grown roughly 76%, while sales has only grown 19%.
- **This profitability growth of 6pp** within the industry players might be due to a **decrease in the weight of operating costs or just a business scale effect**.
- There is a continuous growth trend in EBITDA throughout the years, and the same trend happens within sales. The average EBITDA growth is 20,8%, while sales exhibit an average growth of 5,8%.
- The EBITDA growth could be due to a increasing volume of sales arising from an increase in tourism in the country and the current favorable worldwide economic situation.
- Nevertheless, as the EBITDA grows at a faster pace than sales, **the companies within the industry appear to be more efficient and likely to have less costs to deduct to its revenues**.

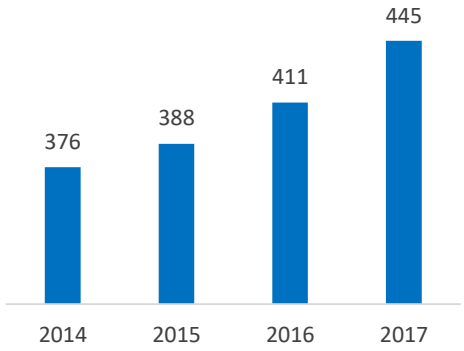
EBITDA/Sales (average)
(2014-2017; %)



EBITDA (average)
(2014-2017; Thousands of €)

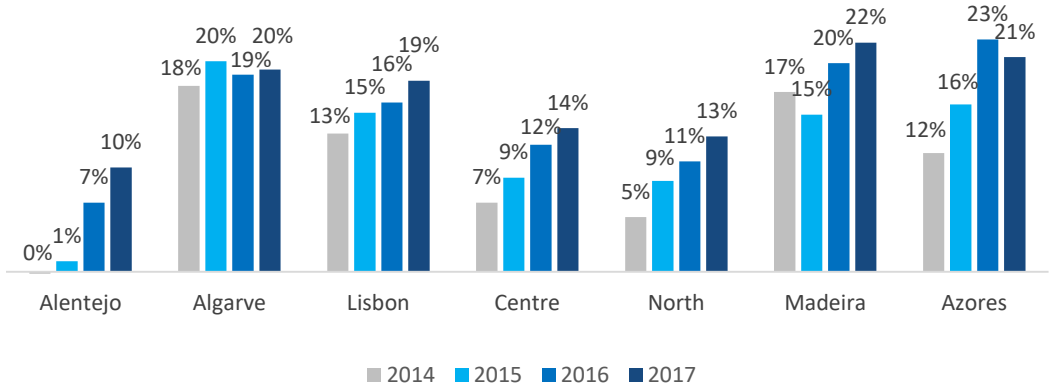


Sales (average)
(2014-2017; Thousands of €)

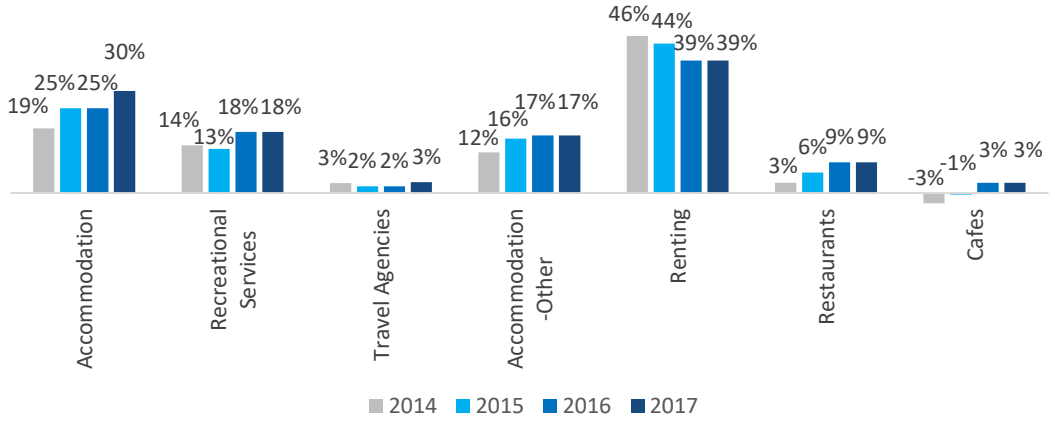


The profitability within the sector has been growing all over the country, but the highlight is within the Renting subsector that exhibits the highest margins and the best performance, despite the negative ratio variation

EBITDA/Sales, by region (average)
(2014-2017; %)



EBITDA/Sales, by tourism subsector (average)
(2014-2017; %)



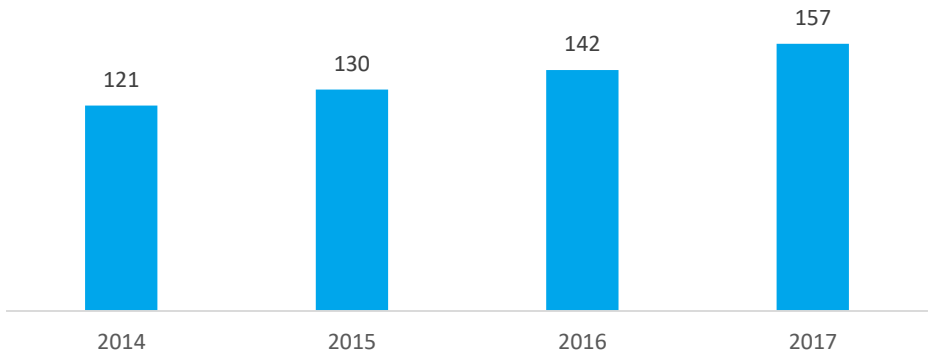
Main Conclusions

- The EBITDA/Sales exhibits a **growing trend** in almost every region of the country. **Alentejo** is the region which **performs the highest growth**, even though is the region where the ratio is smaller. In contrast, **Algarve** is the region that shows **greater stability** in its ratio development.
- The ratio variation in Azores is mainly due to EBITDA changes in Renting companies. This increases from 2015 to 2016, and decreases in the following year.
- **In Alentejo**, the ratio is **significantly dependent on large scale businesses**. A better cost management of these companies reflect the improvement over the last years.
- At the exception of Renting and Travel Agencies, **the ratio is growing in every subsector**. This trend is greater in Cafes and Restaurants, even though through the years these subsectors are among the ones which present the smallest ratios.
- These values **disclose cost management struggle** in both subsectors. In 2017, the EBITDA represented 5% of Cafes' sales and 9% of Restaurants'.
- Although **Travel Agencies** are the subsector (after Renting) with **highest average sales**, **they really strive managing costs and always present the smallest ratio**. In 2017 its EBITDA represented 3% of sales.

The Gross Value Added experienced a positive growing evolution throughout the years

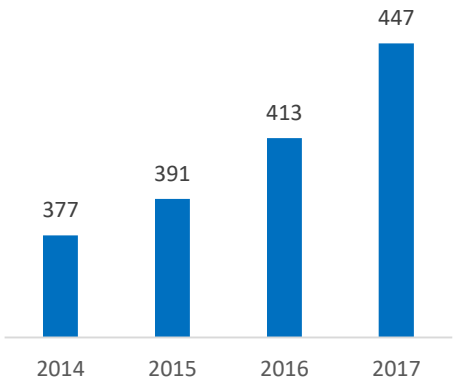
- The Gross Value Added (GVA) shows a **four year average of 4140M€**, having **improved positively between 2014 and 2017,** wich corresponds to a total growth of 58%. The average GVA growth is also showing a great evolution, increasing year by year.
- The average GVA's per year is growing as well, at a slower pace, but getting the advantage of the same momentum (has **grown 30%** thoughout the years, from 121k€ in 2014 to 157k€ in 2017).

Gross Value Added (average)
(2014-2017; Thousands of €)

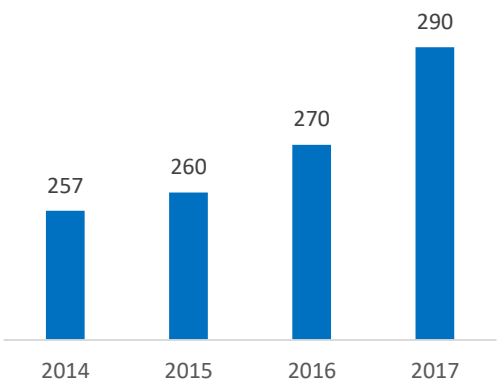


- This great panorama, is a result of **the increase in the revenues** share (19% - in the average values), which was **proportionally greater than the rise in the costs portion** (13%). Despite having the higher growth rate, the revenues also represent a larger total, a bigger piece of the cake, which means that, its average value increased 70k€ versus the 34k€ raise of the other portion.
- The same happens when it comes to total values instead of averaged ones. Here, the costs share increased 37%, which corresponds to 2,6kM€, while **44% raise** in the revenues share, reflects **4,5Bn€ incremental units.**

Revenues Portion (average)
(2014-2017; Thousands of €)



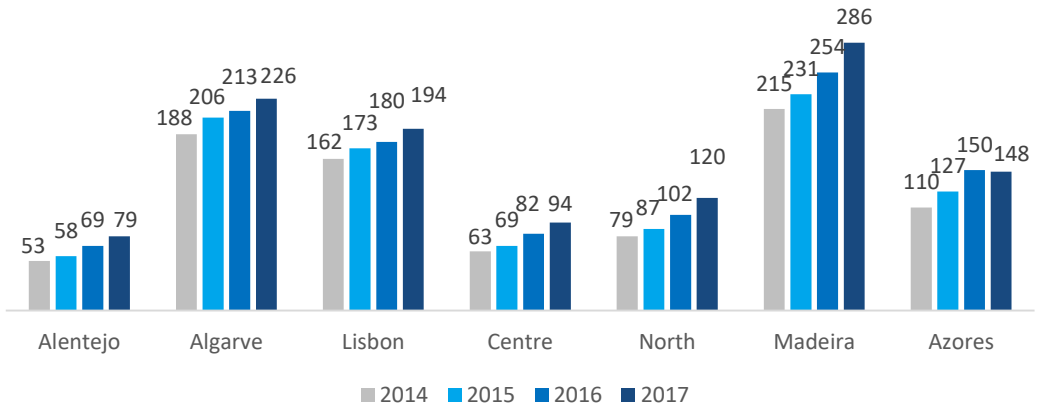
Costs Portion (average)
(2014-2017; Thousands of €)



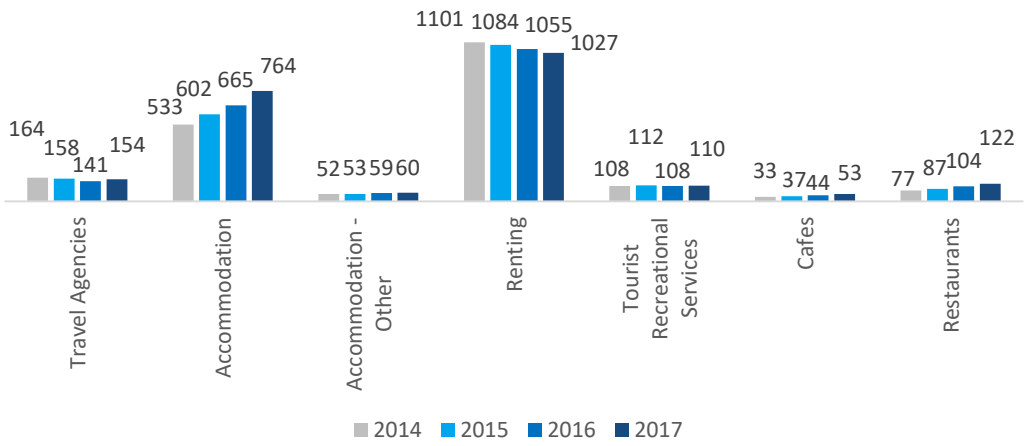
Gross Value Added = Sales and Services Rendered + Operating Subsidies + Variation in Production Inventories + Work for the Entity itself - Costs of Goods Sold and Materials Consumed - Supplies and External Services

The Restaurants and the Cafes as well as the North experienced incredible average GVA evolutions, while the Renting subsector shows abnormal values

GVA, by region (average)
(2014-2017; Thousands of €)



GVA, by tourism subsector (average)
(2014-2017; Thousands of €)



Main Conclusions

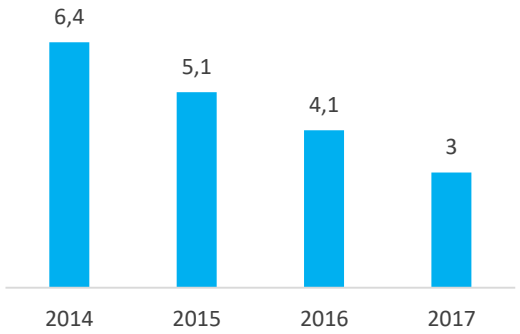
- In all regions of the country, **GVA tends to increase throughout the years** in analysis as previously, except the Azores that suffered a little reduction of 1% between 2016 and 2017, however not enough to contradict the positive evolution of this indicator in that same region.
- The Algarve, Lisbon and Madeira NUTS, the highest GVA's regions, are also the ones that experienced the smaller growth rates, 20%, 20% and 33%, respectively, versus the higher raise, in the North, **the only one that more than doubled its average GVA value, 52%**.
- When it comes to analysing the average GVA of the Tourism subsectors, its behavior is a bit trickier and irregular. **The Restaurants and the Cafes**, with such small values (in comparisson with others), **experienced incredible evolutions of 58% and 61%,** respectively, followed by the Accommodation, that was unable to double its growth rate, 43%.
- **The Renting subsector presents abnormal average values**, not only due to its superior value scale but also because of its decreasing behavior, also observable in the Travel Agencies subsector. The highest average GVA subsector followed this path, due to a **boost in the costs portion that surpassed the revenues share increase**. The first rised 567k€, 57% against the 491k€ increment on the second's average, 23%.

Despite a decrease in the average of Net Debt per company over the years, the total Net Debt increased by 6% per year

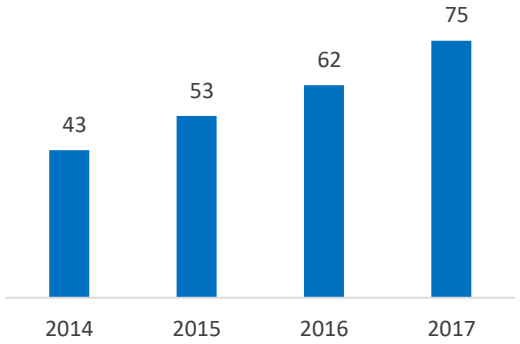
- **Decrease of the average between 2014 and 2017** (6.4 to 3.0, respectively), due to the increase of the total EBITDA (1.2€ billion in 2014 to 2.5€ billion in 2017) being quite bigger than the increase of the total Net Debt (of 7.4€ billion in 2014 to 7.5€ billion in 2017).
- The Net Debt per company experienced a decrease of 274k€ in 2014 to 229k€ in 2017, even though the **total Net Debt of Tourism rose**, mainly due to the increase in the number of enterprises.
- Both the average EBITDA per company and the total of Tourism increased.

- **Lisbon** is the region with the **highest average of net debt** (having declined, with 339k€ in 2017) and also with the highest number of companies (12k in 2017).
- Contrary, **the North**, which is the second highest region in terms of number of enterprises (9k in 2017), presents the **lowest average of Net Debt** (also tending to decline, and values of 110k€ in 2017). For the EBITDA, the same proportionality is experienced between regions, only with a discrepancy in **Alentejo**, being one of the regions with the **highest net debt average** and at the same time the one with the **lowest EBITDA average**.

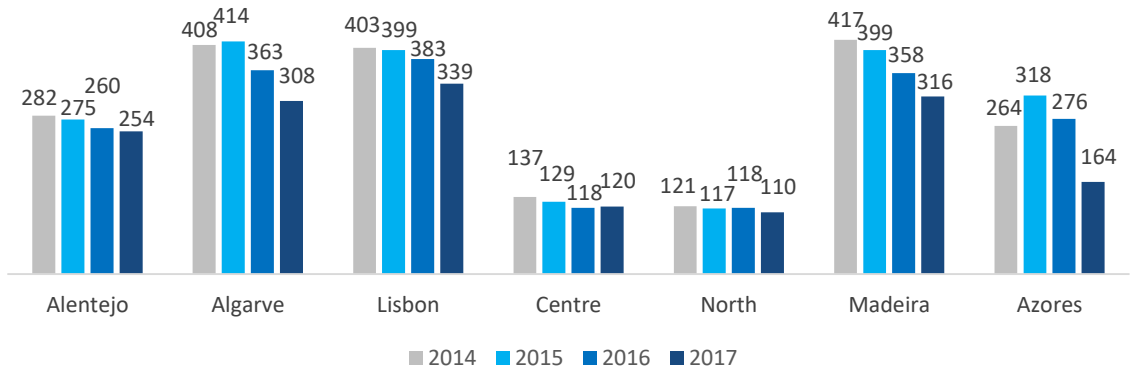
Net Leverage (average)
(2014-2017, %)



EBITDA (average)
(2014-2017; Thousands of €)

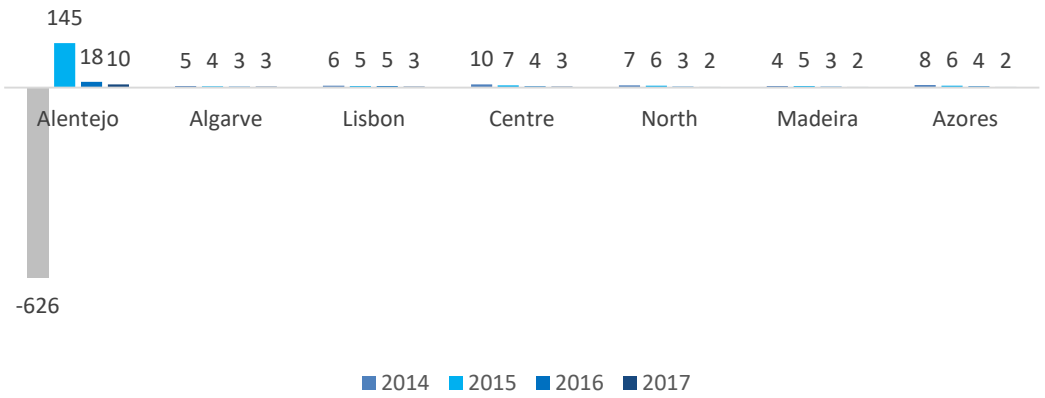


Net Debt (average)
(2014-2017; Thousands of €)

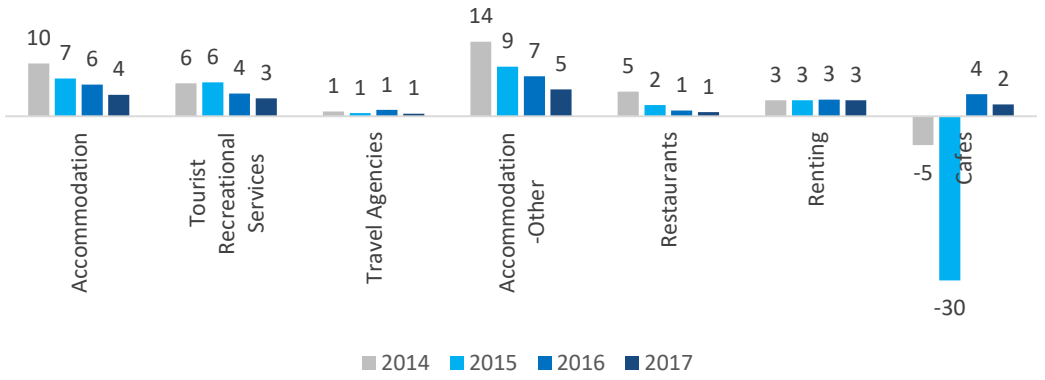


It was verified a decrease in Net Leverage throughout the years, due to the growth of the EBITDA total being higher than the Net Debt total

Net Leverage, by region
(2014-2017)



Net Leverage, by tourism subsector
(2014-2017)



Main Conclusions

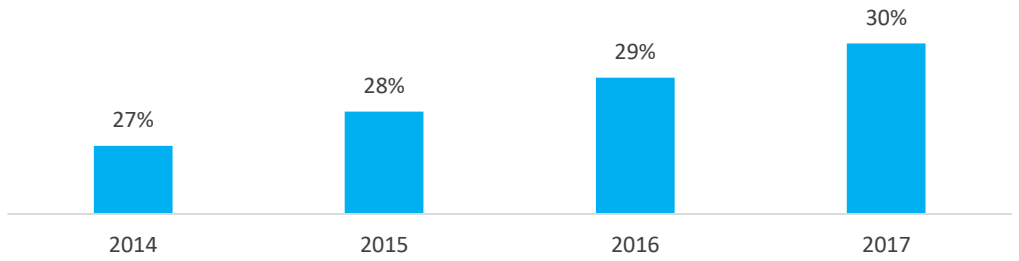
- **Downward trend from 2014 to 2017 in the majority of the regions**, with a sharp fall in the Azores (from 75pp to 2014-2017) and the North (de 71pp), both with an increase in the EBITDA average (and total), and a decrease in the average of net debt (although the total in the North increased, given that the number of companies also did – 9k in 2017).
- **Alentejo** numbers' discrepancy in 2014-2015 is due to the **negative EBITDA** experienced by **50% of the companies** (total of -1M€ and 3M€ in 2014 and 2015).
- **Lisbon** contributed to **52% of the total Net Debt of Turismo** (with 3.9 B€ of 7.5 B€ in 2017) with 36% of the country's companies (12k of 33k) in 2017.
- In the **majority of subsectors**, it was observed a **general decrease of 50pp** between 2014 and 2017, except for **Renting** (constant ratio) due to a **parallel increase** of the total values of Net Debt and EBITDA.
- **Accommodation and Renting** present the **highest average values of Net Debt** (1,9M€ and 2,8M€ in 2017, respectively**) and EBITDA** (468k€ and 935k€ in 2017), with Accommodation having 4 times more companies than Renting (2179 and 590 companies in 2017), therefore a higher total net debt (4.2B€) and EBITDA (1.0B€).
- Negative values for **Cafes** due to the **total EBITDA being negative** (-34M in 2014).

The average value of Assets per company in Tourism has decreased over the years, while its' total experienced a constant increase per year, averaging 4%

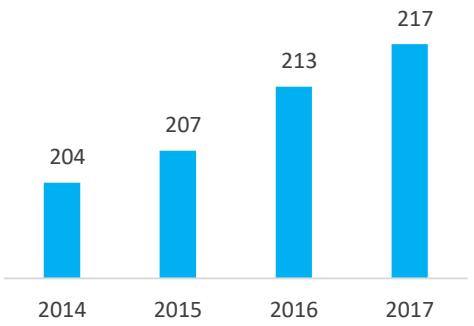
- The **Financial Autonomy experienced an increase every year**, from 2014 (27%) to 2017 (30%) due to increase in total Equity being higher than the increase in total Assets.
- Also, it is important to reinforce the rise in total companies in the Tourism sector, 27k (2014) and 33k (2017), with a bigger increase observed between 2014 and 2015 (7%).

- The **average Assets per company** experienced a constant **decrease** throughout the years**, despite total Assets constantly rising** (20.6 B€ in 2014 and 23.5 B€ in 2017).
- The **average Equity per company increased** from 2014 to 2017, with **the total value of Equity in Tourism steadily rising** from 5.5 B€ in 2014 to 7.1 B€ in 2017.
- **Equity in Madeira** stands out in the sense that is the region with the **highest average value per company** (656k€ in 2017), but only with 4% of companies
- In contrast, **Lisbon**, despite experiencing half of the equity per company (250k€ in 2017) compared to Madeira, presents **10 times more companies**. The same is true for Assets.

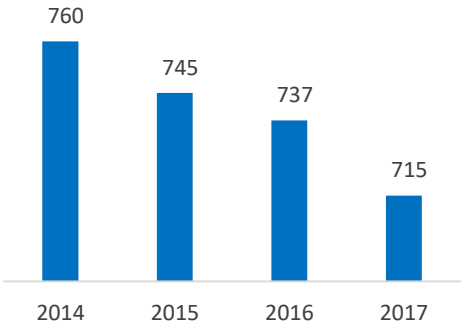
Financial Autonomy (average)
(2014-2017; %)



Equity, (average)
(2014-2017; Thousands of €)



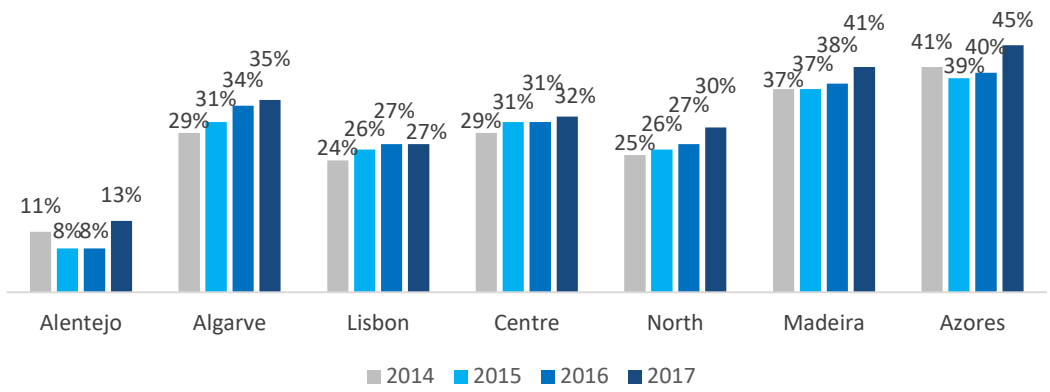
Assets (average)
(2014-2017; Thousands of €)



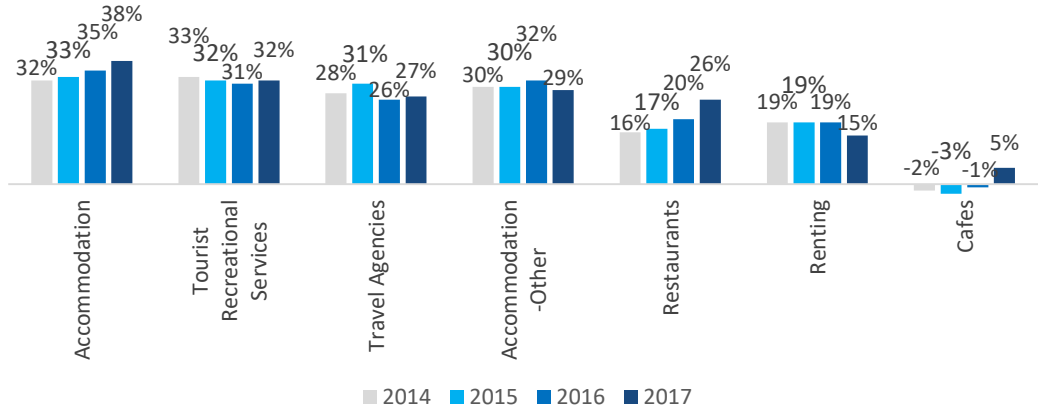
Financial Autonomy = Equity / Assets

Despite the increase in Financial Autonomy observed, in 2017 it decreased due to the growth of total Assets being higher than the one of total Equity

Financial Autonomy, by region
(2014-2017; %)



Financial Autonomy, by tourism subsector
(2014-2017; %)



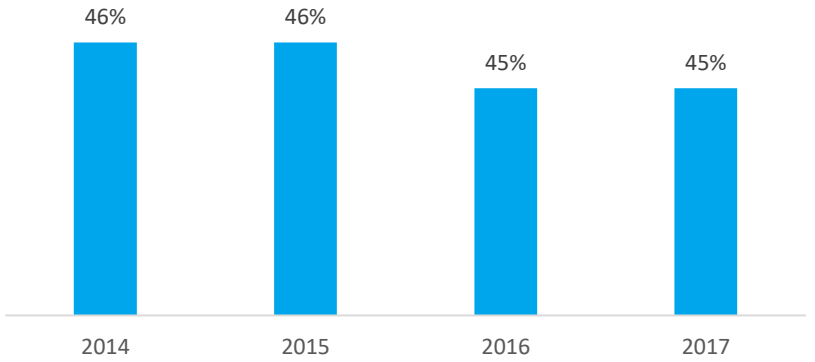
Main Conclusions

- **Increase in most regions** from 2015 to 2017, with Lisbon standing out for the highest values of total Equity and Assets in the country.
- The **North** presents in **half, the average values of Equity and Assets of Lisbon**, despite similar levels of Financial Autonomy.
- The **Islands** showed the **highest average values of Autonomy per company**, with **Madeira having the highest values of Equity per company** (656k€ and 217k€ of tourism in 2017) and Assets (1585k€ and 715k€).
- **Alentejo has the lowest values of Autonomy**, falling in 2015 due to a decline in total Equity (83M€ in 2014 to 58M€ in 2015).
- **Accommodation**, has the **highest levels of Autonomy and average Equity per company** (2008k€ in 2017) compared to the average of Tourism (217k€).
- In **Tourist Recreational Services**, the Equity and Assets **represent one-tenth of the average values of Accommodation.**
- **Cafes**, with an increase in Autonomy, represent the **lowest values of Tourism Autonomy,** due to the **reduced values of Total Equity** (-19M€ in 2014), negative until 2017 (46M€ comparing with 7.1 B€ in Tourism).

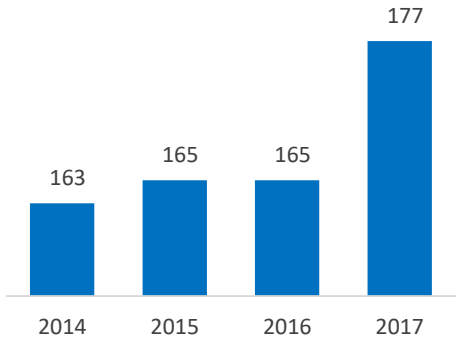
External Services and Supplies and Total Costs reach their peak in 2017. Increase of both elements fails to affect value of the ratio

- The average percentage of **External Services and Supplies** amongst Total Costs **reaches 45.5%,** which stems from the average values of €165k spent on External Services and Supplies and €369k on Total Costs, based on the data from roughly 120k observations.
- **No strong annual mutations** in the values are evident. However, a **slight decrease in the ratio** was registered from 2015 to 2016, when External Services and Supplies costs stagnated and overall ones continued on upward trajectory.
- Until 2016, the **evolution of this ratio** is due to the **elevation of Total Costs**, while External Services and Supplies remain almost static. However, the abrupt increase of both elements in 2017 originates a similar ratio value to previous years (minus 1pp).
- The **volume of ESS** features similar values until the penultimate year under analysis, stagnating in 2015/16. However, **a pick** is **reached in 2017** when ESS reaches its maximum value of €177k in 2017, as a result of a similar increase in Total Costs.
- Total Costs feature a growth whose peak is reached in 2017 with €392k, far higher than the initial €354k in 2014. Its **spending have matched ESS's**, resulting in continuously **similar ratio values**.

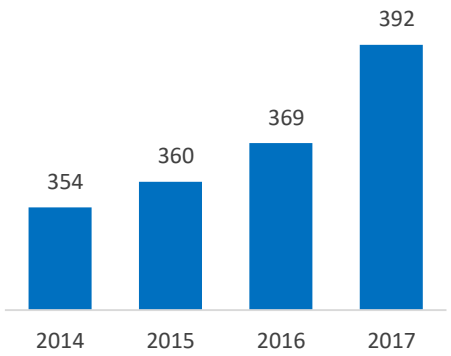
External Services and Supplies/Total Costs (average)
(2014-2017; %)



External Services and Supplies (average)
(2014-2017; Thousands of €)



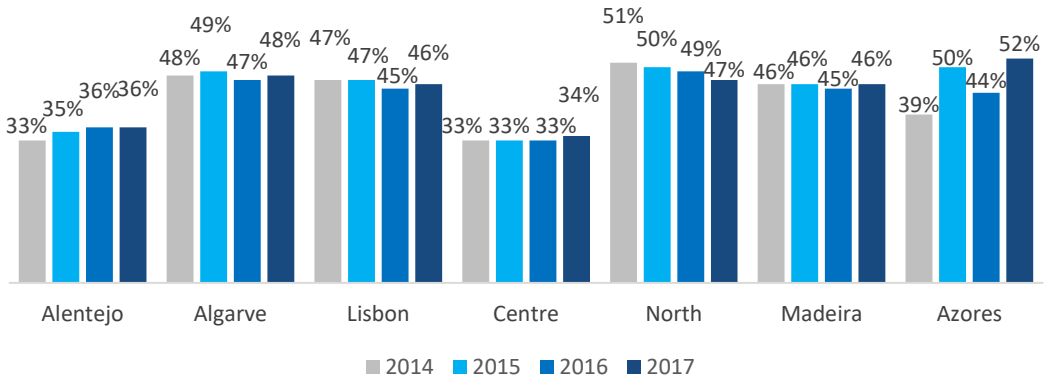
Total Costs (average)
(2014-2017; Thousands of €)



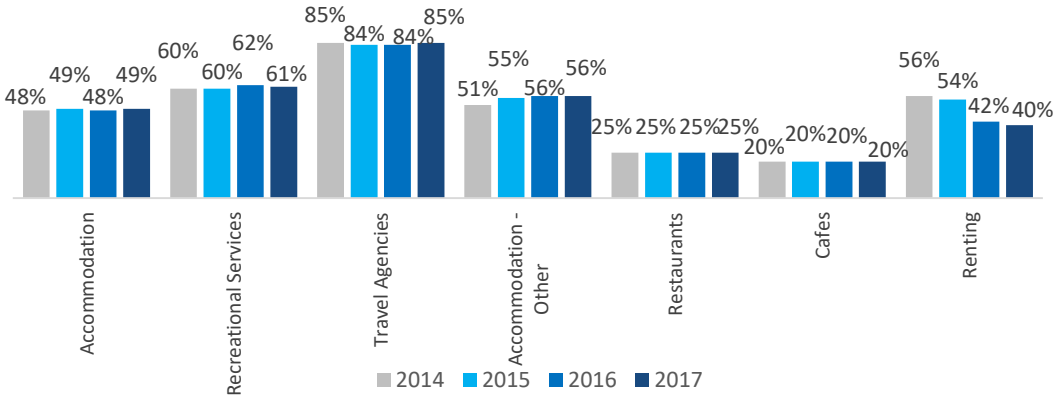
Cost Stucture = External Services and Supplies/ Total Costs

Centre mirrors a smaller percentage on External Services and Supplies. Restaurants and Cafes feature a steady and low ratio

External Services and Supplies, by region
(2014-2017; %)



External Services and Supplies / Total Costs, by tourism subsector
(2014-2017; %)



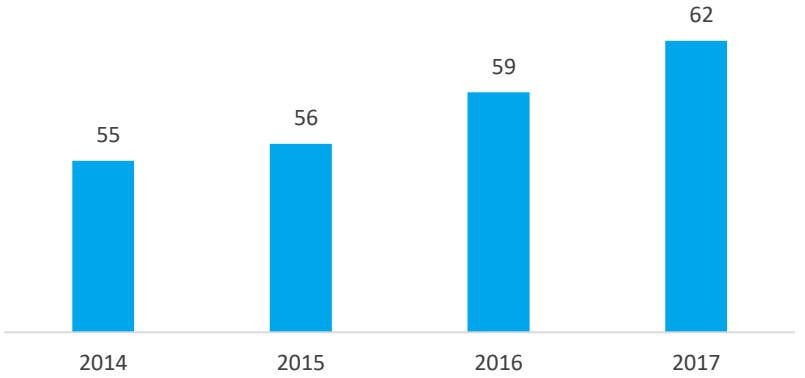
Main Conclusions

- **Centre** has a constant **lower dependency on External Services and Supplies**, as it features the lowest percentage of expenses in Miscellaneous Services.
- The **timely unsteadiness in the Azores** is due to the results evidenced by **Travel Agencies**. The 2014 and 2017 figures are impacted by the 64% to 93% growth respectively in this subsector with high turnover.
- The **low values Alentejo** features are due to **Restaurants and Cafes**, whose ratio averages 16% and 21% in 2017. The predominance of these two subsectors is evident when the subsector with the highest total costs, Restaurants (€147M), features similar absolute costs in ESS as Travel Agencies (92% of ESS),with €31M.
- **Intersectoral discrepancies** appear colossal, ranging from 20-25% in Coffee Houses and Restaurants to 85% in Travel Agencies. It is justified by the fact that in 2017, **87% of EES in the Travel Agencies belong to Subcontracts**, whose spending represents only 2% of the ESS in Restaurants and Cafes. In 2017, spending on **Energy and Fluids**, as well as **Materials**, highlights this asymmetry, representing 24% and 7% of the ESS of the Cafes in 2017 compared to only 0,88% and 0.32% of the Travel Agencies respectively.

The Peak of Sales/Associate occurs in 2017, as a result of increasing sales

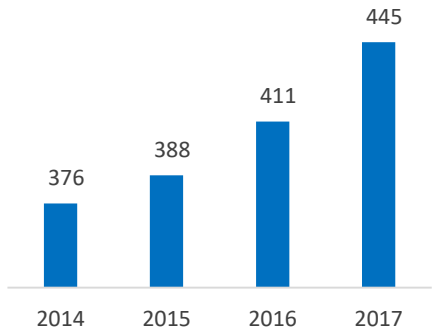
- **Sales/Associate** averages **€58k annually**, which results from the generated average values of €338k and 7 associates, based on roughly 120k observations.
- This growth trend, displayed in the time spectrum, began in 2014 with €55k and had its **peak reached** in the last year under analysis **(2017) with €62k**, when the average number of associates drops at a larger scale than the plunging sales volume, and consequently enabled the continuation of this growth trend.

Sales/Associate (average)
(2014-2017; Thousands of €)

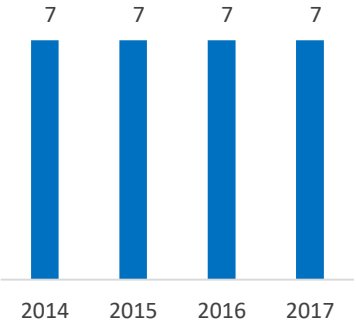


- This ratio's increasing trend is due to the **static number of associates generating increasing revenue streams overtime**, exemplified by the non-use of a higher number of employees in the scenario of increasing sales.
- The average **volume in sales** increases throughout all the years under analysis, reaching its **peak in 2017** (€445k), as a result of strong growth of 18.35 pp since 2014.
- The average **number of employees remains static** between 2014 and 2017 (7), which alongside the increase in sales, results into an upsurge in the ratio.

Sales (average)
(2014-2017; Thousands of €)

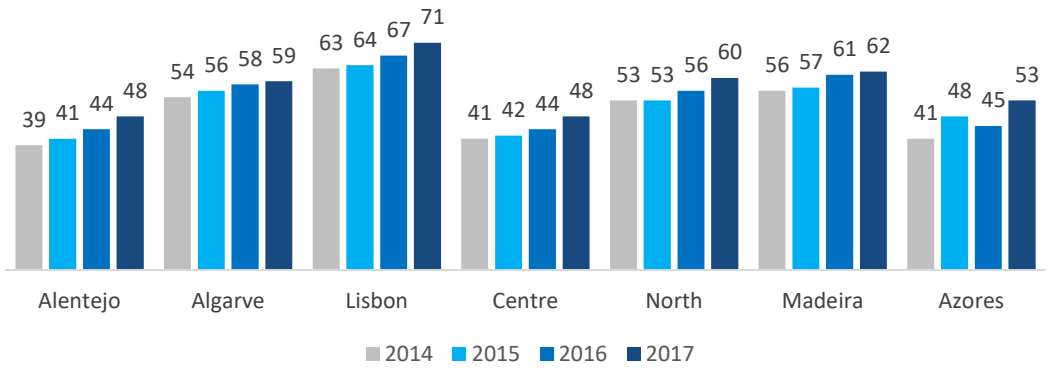


Number of Associates (average)
(2014-2017; Units)

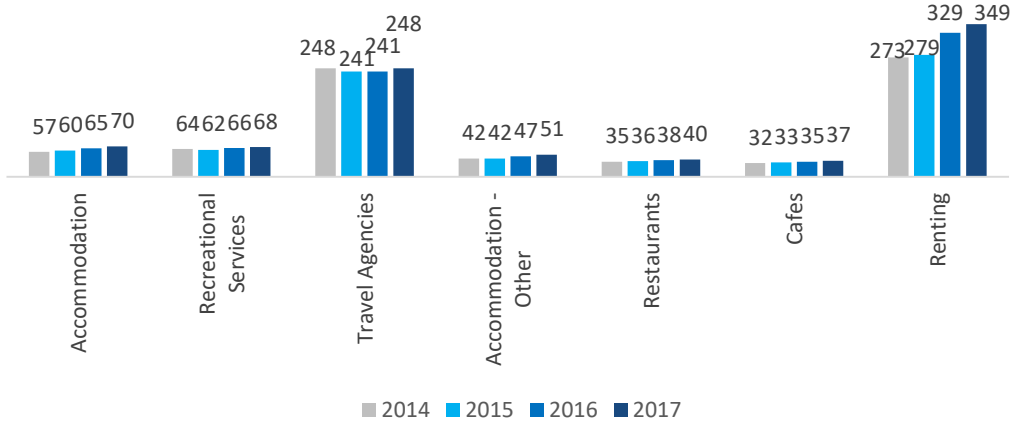


Madeira, leader in sales volume, proves to be less efficient than Lisbon

Sales/Associate, by region
(2014-2017; Thousands of €)



Sales/Associate, by tourism subsector
(2014-2017; Thousands of €)



Main Conclusions

- **Sales/Associate** exhibits greater expression in **Lisbon**. **Alentejo and Centro** display **lower efficiency** levels on the sales/associate ratio.
- **Madeira** showcases a **higher volume of sales** on average terms (€660k) than Lisbon (549k €), but its high number of associates (11) leads to a lower value on the ratio, in comparison to the capital city (2017).
- **Azores** represents the sole region with **negative growth** (from 2015 to 2016), as a consequence of an increase in the average number of associates, despite its average increase in sales.

- **Renting** and **Travel Agencies** accentuate a **discrepancy** with the remaining subsectors due to their extremely high sales (€2591k and €1412k in 2017 respectively). Inter-regional gaps are found in Lisbon, region with the greatest sales in both average (€71k) and absolute (€6479M) terms.
- In 2017, average sales of Renting (€2591k) prove far higher than remainders, but **Accommodation's** (€1555k) are close to those featured by **Travel Agencies** (€1412k). However, Accommodation exhibits a **reduced ratio** due to its average use of 22 associates, compared to 6 in Travel Agencies.

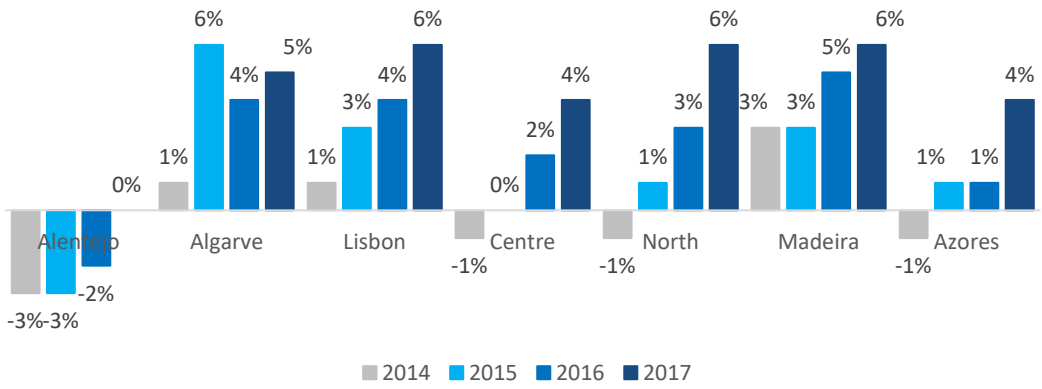
Chapter IV (part II)

Accommodation Subsector

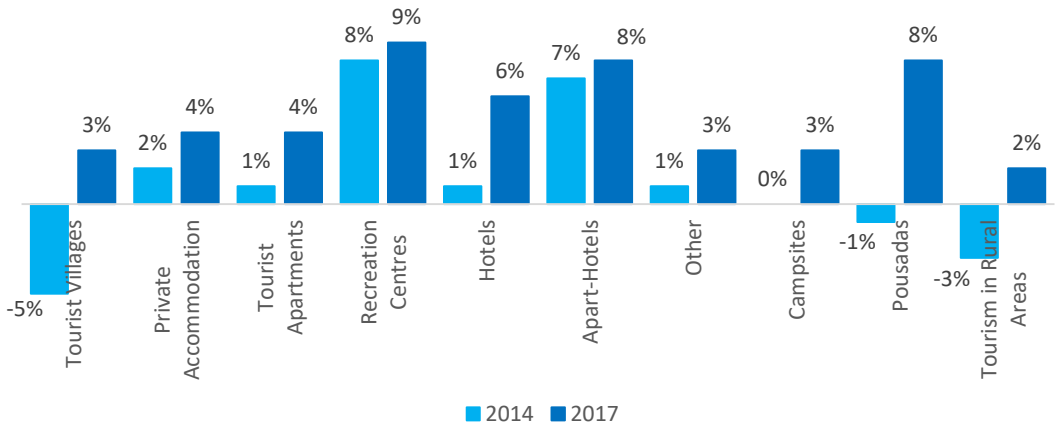
Lisbon

The rate of Return on Assets for the Accommodation subsector is increasing for all the country's regions, with Algarve exhibiting a considerable boost in 2015

Return on Assets, by region
(2014-2017; %)



Return on Assets, by Accommodation type
(2014 e 2017; %)



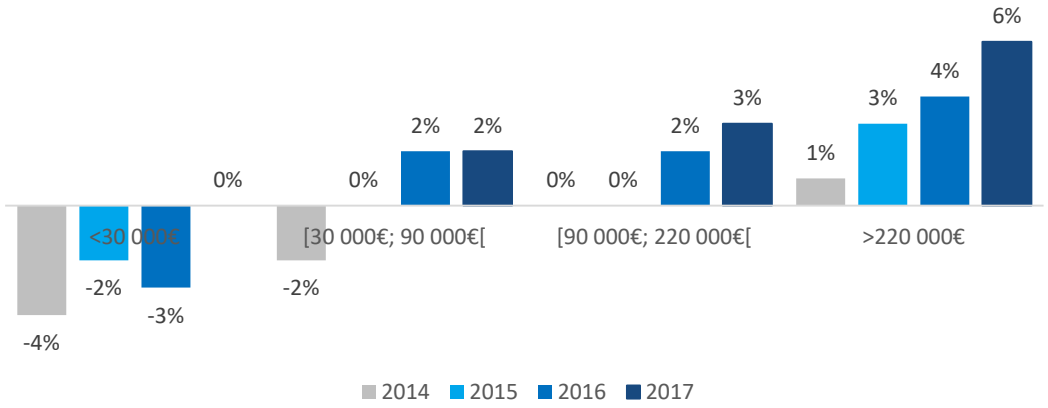
Main Conclusions

- **The ROA in the Accommodation subsector exhibited a gradual increase in almost every region of Portugal between 2014 and 2017,** displaying an increment of 5 pp. The region of the North proved to have an increase above average. Moreover, **Algarve** displayed a large increase in 2015 (5 pp) as a result of a **considerable raise on the EBIT of the companies** within the region (162€ k), which decreased on the following years, reaching average values of ROA.
- **Alentejo stands out due to its low rate of ROA,** despite having increased the rate by 3 pp between 2014 and 2017. This comes as a result of the negative EBIT presented by the companies of this region.

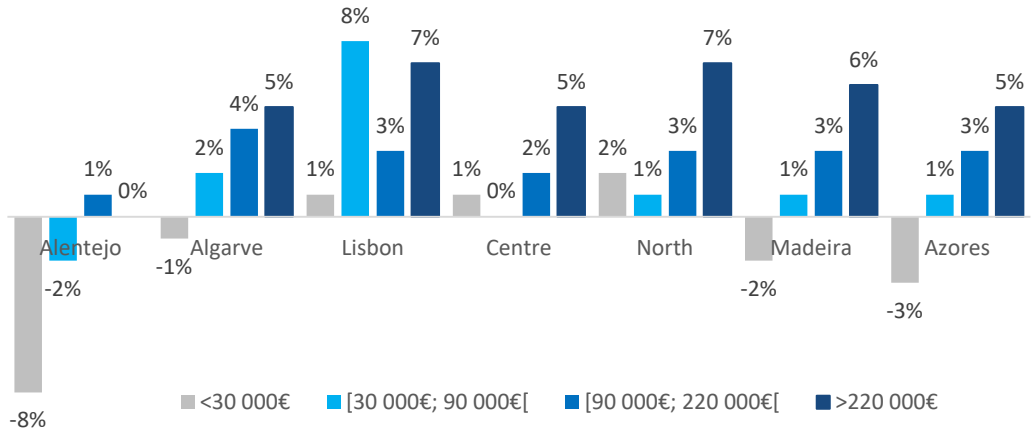
- In 2017, it is conclusive that the **Tourist Villages and the Tourism in Rural Areas** are the types of Accommodation that translate the **worst rates of ROA.**
- The **Hotels**, on the other hand, are the Accommodation type that stands out for a **stable and high rate of ROA**, as well as the Apart-Hotels, and the Pousadas. However, these last two have much lower samples (93 and 10, respectively).

Enterprises with revenues higher than 220.000€ are more likely to present higher rates of ROA

Return on Assets, by turnover
(2014-2017; %)



Return on Assets, by region and turnover
(2017; %)



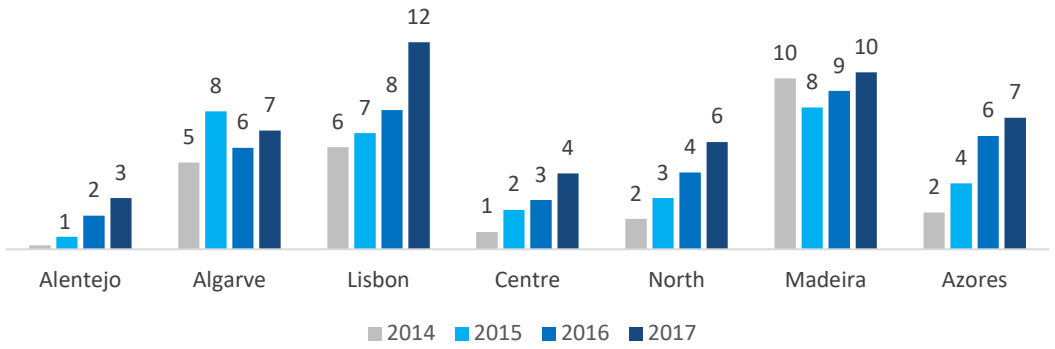
Main Conclusions

- In the Accommodation subsector, it is possible to verify that **companies with turnover superior to 220k€ are more likely to present higher ROA rates** (3%, average of the 4 years). Following those, both enterprises with turnovers within 30k€ -90k€ as within 90k€ - 220k€ tend to present similar rates of ROA (1%, average of the 4 years). Lastly, the Accommodation enterprises with the **lower performance are the ones which have their turnover bellow 30k€.**

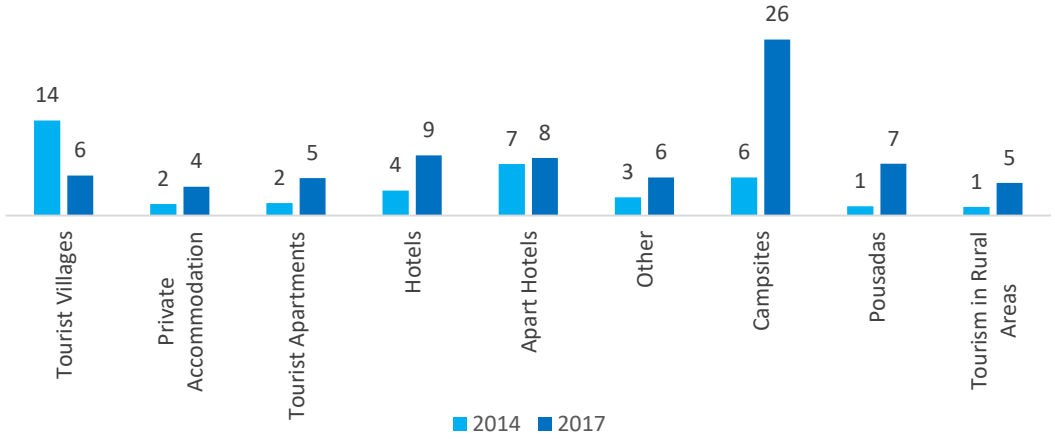
- Focusing on 2017, it is feasible to deduce that **the majority of Portugal's regions exhibit a higher rate of ROA when the companies have turnovers above 220k€.** However, there are some exceptions: in Lisbon, the highest rates of ROA belong to companies with turnovers between 30k€ - 90k€; Alentejo only presents a positive rate of ROA for companies with turnovers within 90k€ - 220k€.

A decrease in the average number of rooms and a significant increase in the companies' average EBITDAs were the main drivers of EBITDA/PAR growth

EBITDA/PAR, by region
(2014-2017; Thousands of €)



EBITDA/PAR, by Accommodation type
(2014 e 2017; Thousands of €)



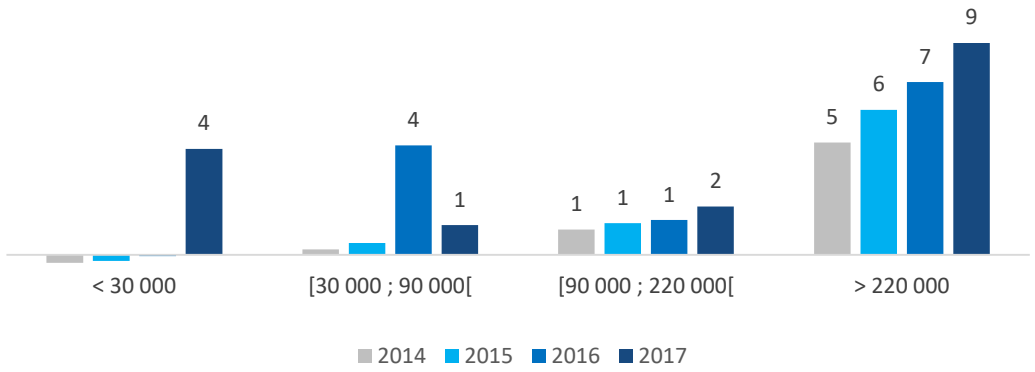
Main Conclusions

- The EBITDA/PAR presents a **growth trend** across every region throughout the years. This behavior arises from an average annual decrease of 6,3% in the number of rooms per company and from an EBITDA annual increase of 17,5%.
- The variation that is verified in Algarve in 2015 is mainly due to a particular Hotel which presents an extraordinary EBITDA record in that same year.
- The **Alentejo presents the greater compound annual growth rate**, but is also the region that records the **smallest ratio** throughout the years under analysis.
- In 2017, Lisbon presents a **significant absolute growth rate**, arising from a generalized EBITDA growth (40%) leveraged by large companies.

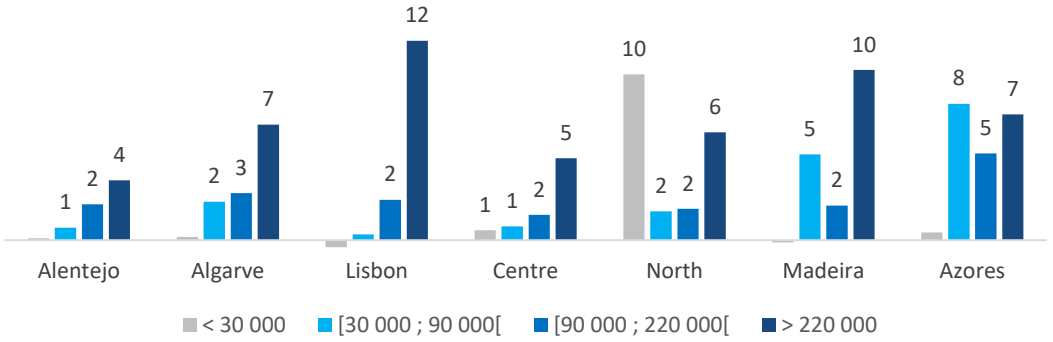
- All Accommodation types, except Tourist Villages, present a growing ratio after the four years of analysis.
- The decrease in Tourist Villages and the increases in Campsites and Pousadas occur, respectively, **due to variations in one particular EBITDA**. Nevertheless, one should consider that there are **very few companies** in all these mentioned Subsectors.
- The vast majority of the development verified within **Hotels derives from the EBITDA growth in Lisbon**, as it was previously analyzed by region.

The > 220.000 quartile does not only exhibits the best results over the years, but is also the best across the great majority of regions

EBITDA/PAR, by turnover
(2014-2017; Thousands of €)



EBITDA/PAR, by region and turnover
(2017; Thousands of €)



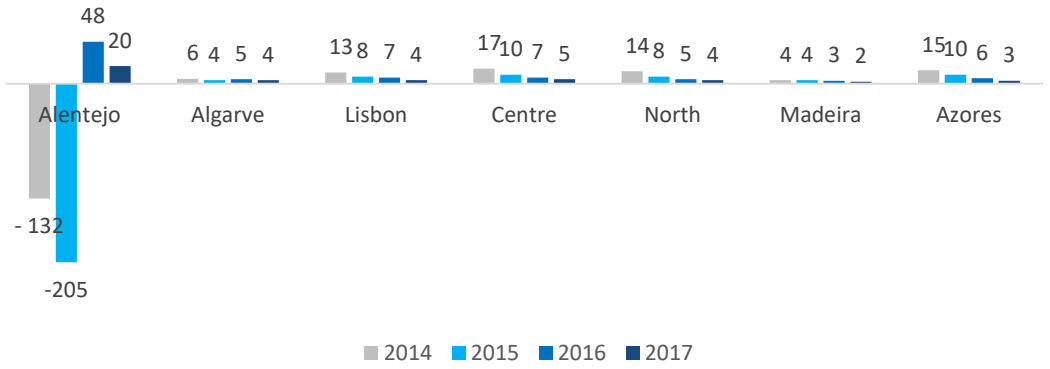
Main Conclusions

- The EBITDA/PAR only performs a **constant development in the quartile > 220.000**, which presents an average annual growth rate of 24%, and is the best performance over the years. This trend suggests that **the greater the company's turnover, the greater is the existing scale effect** in the subsector.
- The quartile < 30.000 only gets a positive ratio in 2017, which might suggest that companies with lower turnovers are becoming more efficient through the years.
- The year of **2017** is the one which **presents better performances** in all subsectors, except in [30.000 ; 90.000[quartile.

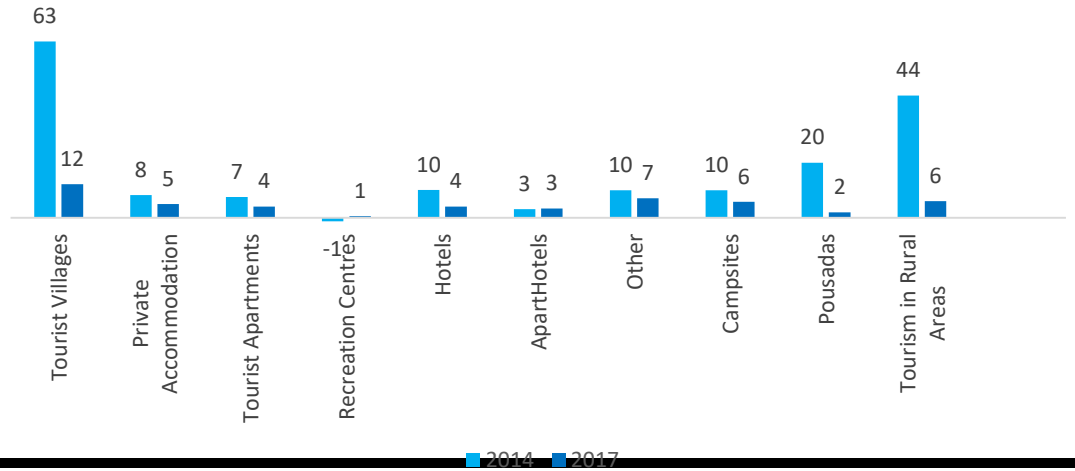
- On a global perspective, the ratio has **better performances within > 220.000** quartile through all regions in 2017, with particular emphasis in Lisbon and Madeira.
- Except in < 30.000 quartile, **Azores performs remarkably** in the remaining quartiles, which is even rewarded with the best performances in the intermediate quartiles.
- **The outstanding performance in the North in <30.000 quartile** demonstrates that is possible to have good results within companies with low turnovers. This is the the highest performance by large extent when in comparison to any other region.

The average values of Net Leverage per company in Accommodation are approximately four times superior to those of Tourism in general

Net Leverage, by region
(2014-2017)



Net Leverage, by Accommodation Type
(2014- 2017)

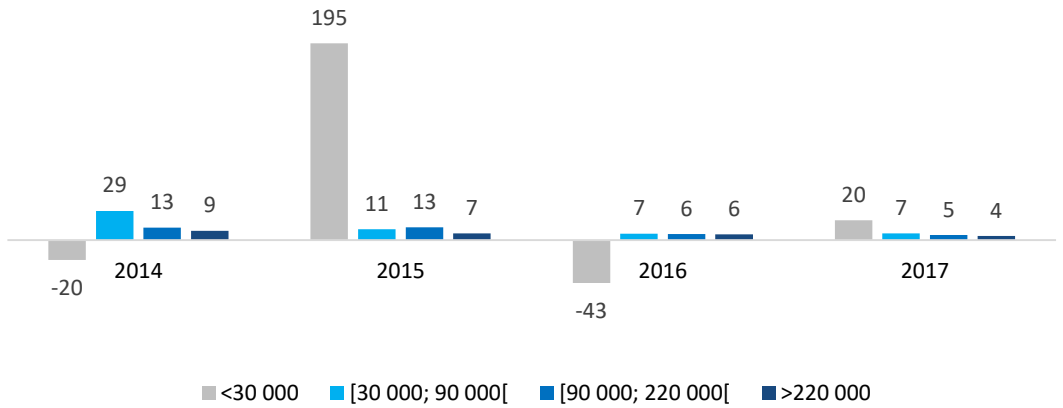


Main Conclusions

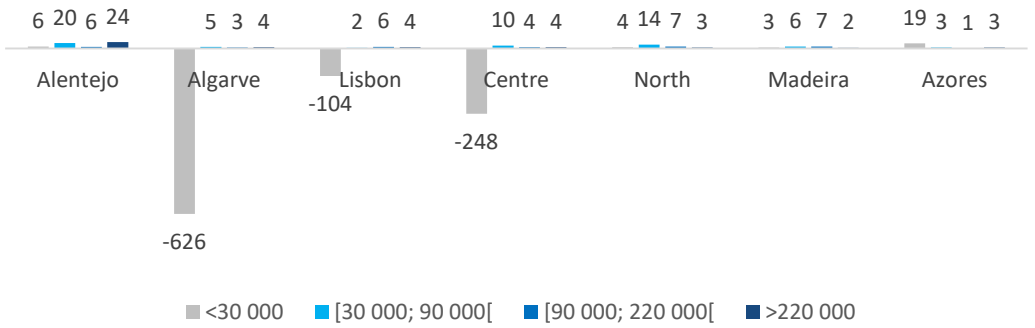
- **Decrease in all regions** with discrepancies in Alentejo, with **negative values** in 2014 and 2015 due to EBITDA total values being negative.
- **Lisbon and Madeira**, present the **highest Net Debt per company** (1633k€ and 1389k€ in 2017, respectively) **and the highest EBITDA** (372k€ and 615k€ in 2017).
- The **North** and **Azores** experienced the **largest percentage decline in the Net Leverage** value between 2014 and 2017 (-71pp and -80pp, respectively). The North, due to the increase in total EBITDA (and average per company) was higher than the increase in Total Net Debt (despite the reduction in net debt per company).
- In the **Azores**, the **total Net Debt decreased** since 2015 (149M€ and 90M€ in 2017) and the total **EBITDA rose** (16M€ in 2015 and 28M€ in 2017).
- **Tourist Villages** have the **highest indebtedness** (66 companies in 2017), having declined (81pp from 2014 to 2017) due to the decrease in total Net Debt between 2014-2016 (decreased from 669M€ to 558M€) and the increase in total EBITDA (average EBITDA almost tripled in 2014-2016 – to 468k €)
- After this subsector, **Hotels and Apart Hotels** have the **highest Net Debt per company** (2546k€ and 3429k€ in 2017) **and EBITDA** (700k€ and 1194k€ in 2017).

The Net Leverage shows the highest average values for Turnover of less than 30.000€

Net Leverage, by turnover
(2014-2017)



Net Leverage, by region and turnover
(2017; %)

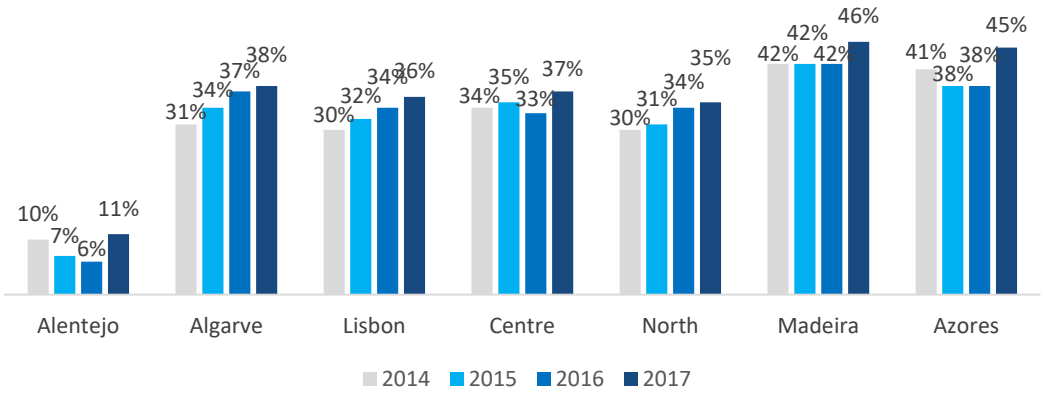


Main Conclusions

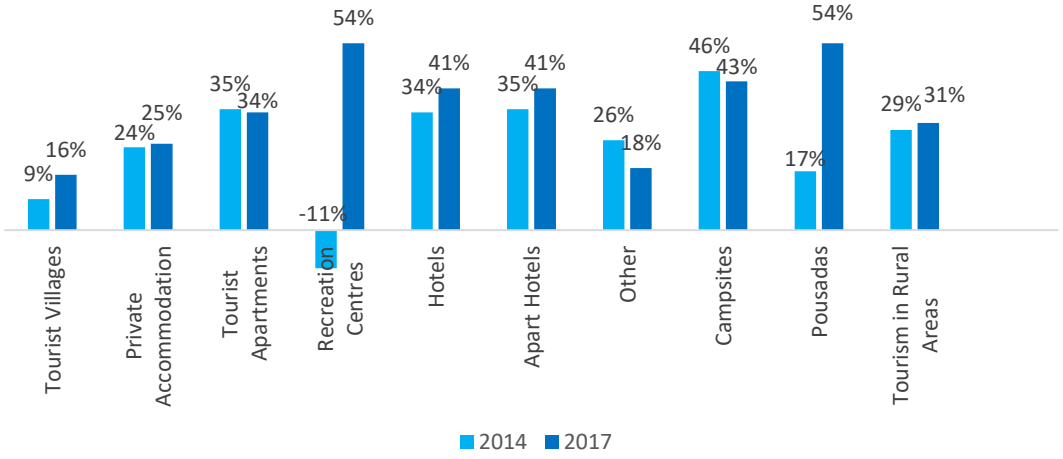
- In general, the **Net Leverage in Accommodation decreases as the Turnover increases**, with an average of 19.6 (2017) for Turnover of less that 30.000€, of 6.6 between 30.000€ and 90.000, of 5.1 between 90.000€ and 220.000€, and of 4.0 when higher than 220.000€.
- With a **turnover of less that 30.000€**, the **discrepancy between regions is noticed**, and also throughout the years (for the same range), with an average of -19.7 between regions in 2014, 194.9 in 2015, -42.6 in 2016 and 19.6 in 2017.
- The **highest values of Net Leverage**, on average, are seen for businesses with **turnovers between 30.000€ and 220.000€** (and has been decreasing from 2014 onwards).
- It is important to note that **Alentejo,** for turnovers **above 220.000€**, presents the **highest values of Net Leverage every year**, even though it decreased from 113.4 in 2014 to 23.5 in 2017. These extreme values are a result of a few number of **companies with high turnover that experience extreme high values of Net Leverage** when compared to the rest of the sector.

Autonomy values in Accommodation, on average, are higher than the Tourism average (33% and 28%, respectively)

Financial Autonomy, by region
(2014-2017; %)



Financial Autonomy, by Accommodation type
(2014 e 2017; %)

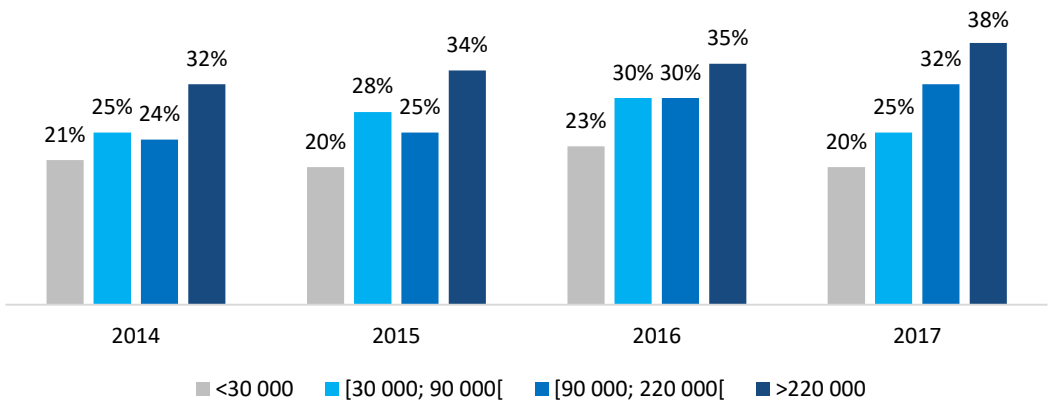


Main Conclusions

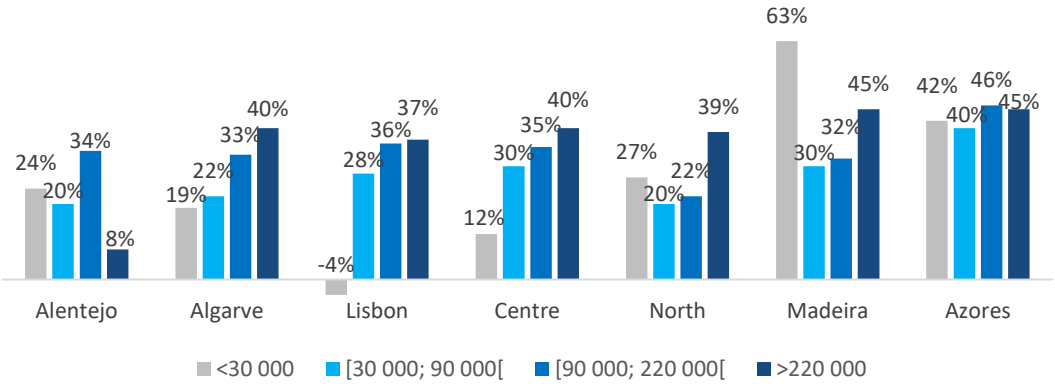
- **Accommodation (33%)** presents **higher values than Tourism (28%)** in all regions, except in Alentejo (average of 8% from 2014 to 2017) due to the Equity low average.
- In the **Islands**, although **similar Financial Autonomies** (around 40%), **the average Equity** (and Assets) per company in Madeira (3,073k€ in 2017) is **five times higher than in Azores** (622k€ in 2017).
- **Alentejo** has a **greater dependence of foreign capital**, namely two hotels entities that stand out for its high levels of loss.
- **Private Accommodation** (25%), Other (17%), and **Tourist Villages** (13%) have a **dependence on borrowed capital above average.** The latter, with the highest average Assets per company (13,184k€ em 2017).
- **Recreation Centres** have the **most contrastive values** in the years observed, with only one active company since 2014.
- **Pousadas** present the **highest Financial Autonomy**, with the increase explained by the **growth of total Equity and a decrease in Total Assets** (and per company). Also, the increase between 2014-2017 (37pp) is due to increase in total Equity (13M€ to 40M€ (and average per company of 2637k€ to 3950k€).

There is an increase in Autonomy as the Turnover gets higher, although in Alentejo, this trend is only found between 30.000€ and 220.000€

Financial Autonomy by turnover
(2014-2017; %)



Financial Autonomy, by region and turnover
(2017; %)

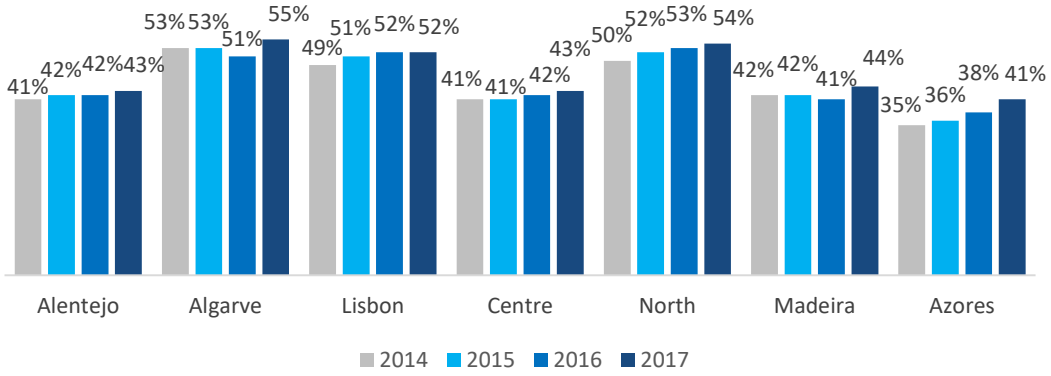


Main Conclusions

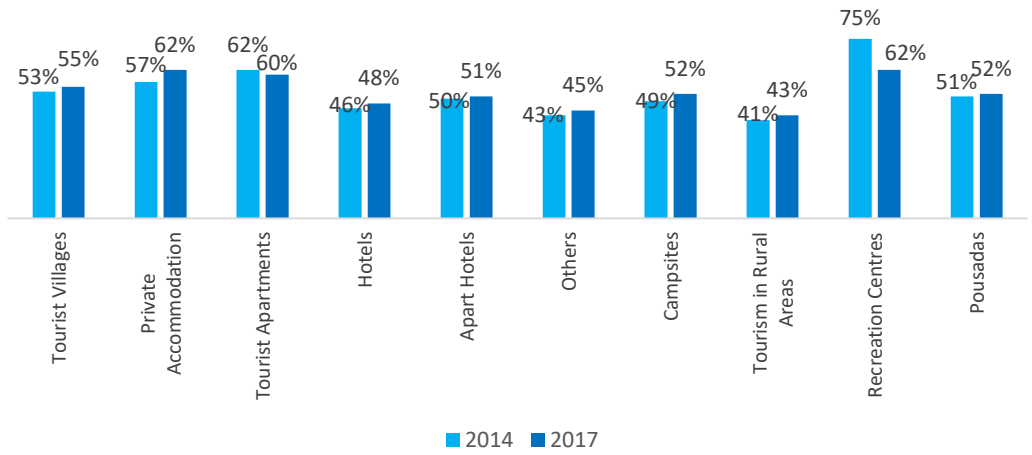
- In general, the **Financial Autonomy in Accommodation increases as the Turnover rises**, with an average of 20% (2017) for Turnover of less than 30.000€, of 25% between 30.000€ and 90.000, of 32% between 90.000€ and 220.000€, and of 38% when greater than 220.000€.
- **Alentejo**, had a **constant Autonomy** performance throughout the **4 years** when considering the turnover range between **30.000€ and 90.000€** (with an average of **18%** from 2014-2017), and when considering the **last 2 years alone (2016 and 2017) excluding the extremes** (considering between 30.000€-220.000€) the Autonomy was on average **22%-32%.** While for turnovers **above 220.000€ has only decreased** since 2014 due to companies with a considerable loss and high Turnovers.
- On the other hand**, Lisbon** has experienced a **greater values of Financial Autonomy for turnovers above 90.000€,** on average above 25%, throughout the years, even though in 2016, companies with turnover below 30.000€ witnessed the highest Financial Autonomy, on average of 45%. Therefore, in Lisbon, companies with higher financial turnovers are expected to have a greater financial Autonomy, when compared to low business volumes' ones.
- Financial Autonomy in **Accommodation subsectors, increases as the Turnover does.**

External Services and Supplies represent the largest source of costs and reflect contrast between Algarve and Alentejo

External Services and Supplies/Total Costs, by region
(2017; %)



External Services and Supplies/Total Costs, by Accommodation type
(2014, 2017; %)



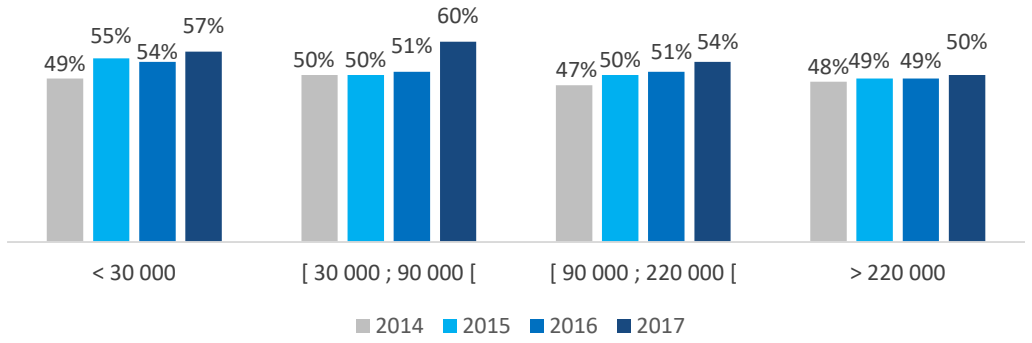
Main Conclusions

- **Algarve** features a **higher percentage of ESS** on Total Costs, justified by its most expressive typology, **Tourist Villages** (57% in 2017). Still in 2017, higher values were registered nationwide amongst Private Accommodation (62%) and Tourist Apartments (60%).
- **The Azores** exhibits the **lowest average values** of this indicator, together with the Azores. Still, Alentejo features the strongest discrepancy between its two most representative typologies: in 2017, **Hotels** spend 35% of their total costs on ESS, whereas this value amounts to 71% in **Apart Hotel's** Total Costs.

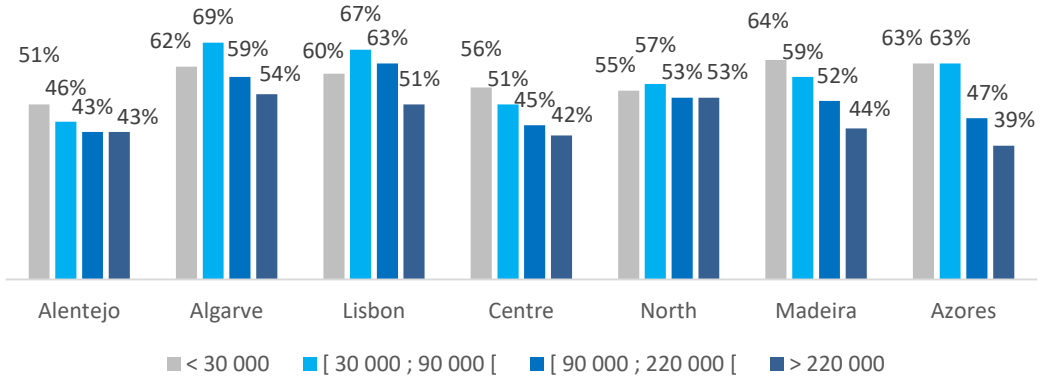
- **Tourist Apartments** and **Private Accommodation** evidence the highest most ESS-dependency, with Tourist Apartments' values dropping by 2 pp from 2014 to 2017.
- **Tourist Apartments** feature high-performing regions, **Lisbon and the Algarve,** with 67% and 64% of Total Costs represented by ESS respectively (2017). Despite **Centro** representing the region that averages the **highest Total Costs and ESS**, its ratio value (48%) ranks lower with considerably higher values registered by Lisbon (67%), the Algarve (64%) and the North (52%).
- **Tourism in Rural Areas** exhibits the **lowest values**, justified by **Madeira**, which features the greatest costs (€235k in 2017), but whose % of ESS remains at 29%.

Companies with the lowest revenue stream turn out to be more dependent on ESS

External Services and Supplies/Total Costs, by turnover
(2014-2017; %)



External Services and Supplies/Total Costs, by region and turnover
(2017; %)



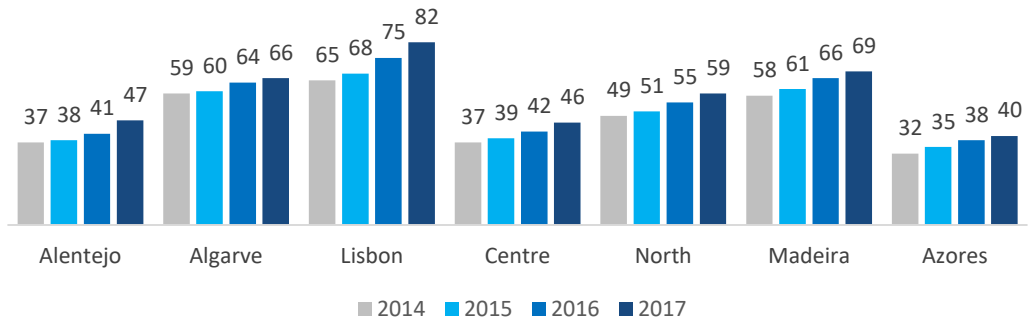
Main Conclusions

- Companies within the **smallest turnover** group are observed to have a **more ESS-dependent** cost structure, except in 2017 with 2nd quadrant firms ranking higher.
- 49% of ESS in the Total Costs registered in 2014 in companies with less than €30.000 in revenues stems from **Lisbon**'s performance, which averages only 37% in that year and quartile.
- The **60% figure** displayed by companies with turnovers from €30.000 to €90.000 (2017) stems from the general average growth in the usage of ESS as well as the existence of **three regions with above-average values** (Azores, Lisbon and Algarve).

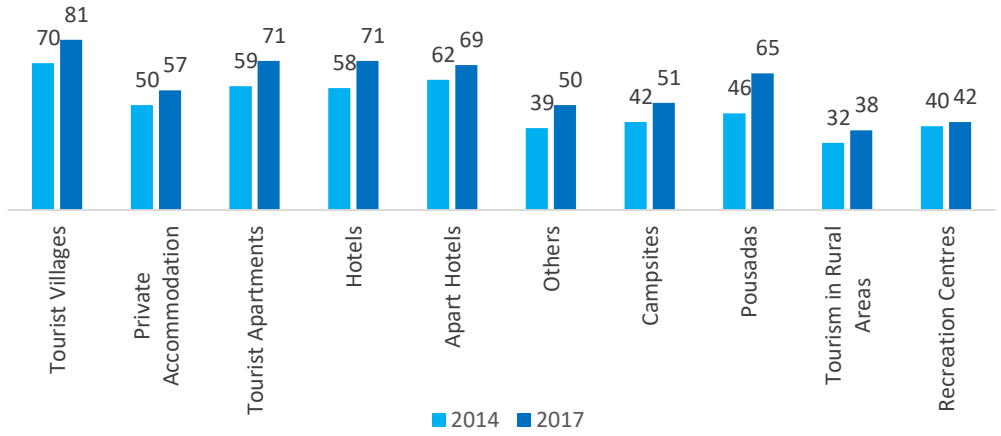
- **Lisbon and the Algarve** both feature **higher percentages of ESS**, while Alentejo and the Azores showcase lower values. However, companies in the Azores with less than €90.000 in turnover display higher values amongst equivalents from other regions as well as Azorean companies with dissimilar revenue streams.
- A **strong asymmetry** is visible between the companies with the **lowest turnover in Alentejo and the remaining** regions. It is justified by the values featured by a single entity with average ESS expenses of €337 within averaged Total Costs of € 12.202.

Lisbon leads Sales/Associate. Decrease in average number of associates boosts ratio growth

Sales/Associate, by region
(2014-2017; Thousands of €)



Sales/Associate, by Accommodation type
(2014, 2017; Thousands of €)

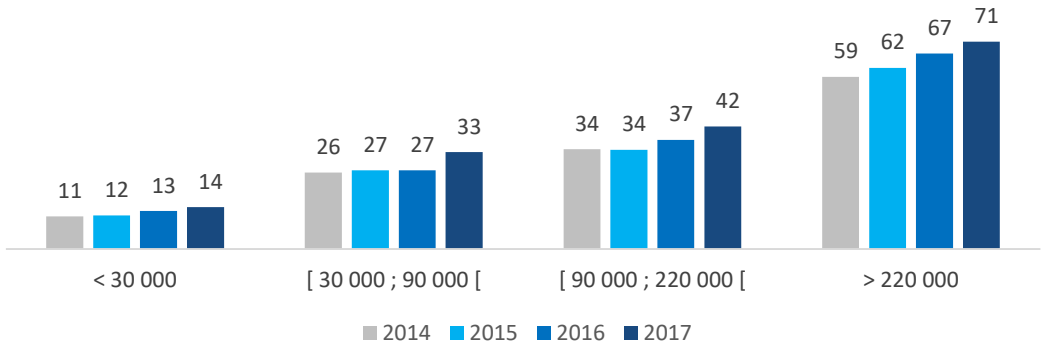


Main Conclusions

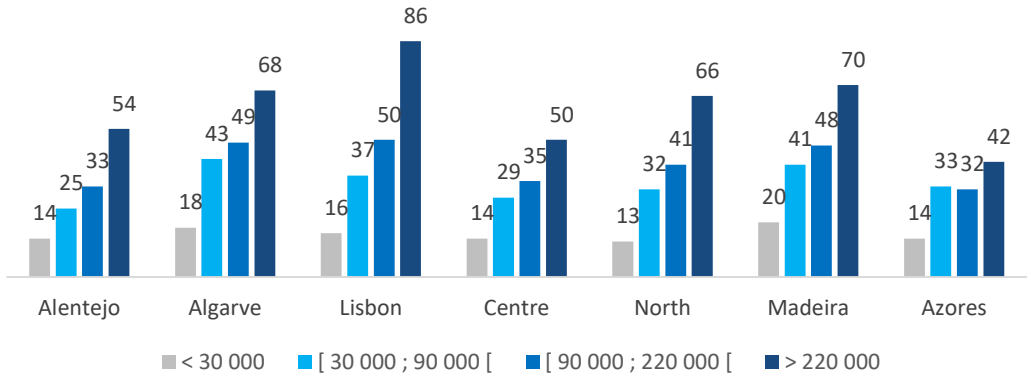
- **Lisbon** features the **highest sales volume per associate**, resulting from the low number of staffers (14 in 2017) in comparison to its sales volume (€1131k in 2017).
- The **Azores** exhibit the **lowest value** of this ratio, due to its high number of associates in comparison to its small volume of sales (€341k). Still in 2017 however, Alentejo generates similar sales (€313k), employs 7 people. As the value registered in the Azores proves proportionally-higher (9), a lower ratio value is displayed.
- The **growth in time** stems from the **decrease** in the usage **of associates** at higher rate than its decline in sales.
- There is evidence of positive **growth between 2014 and 2017**, as well as **strong inter-subsectoral asymmetry**. It is highlighted that the values generated by Tourism in Rural Areas are less than half of those earned by Tourist Villages, in both years.
- **Tourist Villages'** ratio is impacted by the high averaged values in **Lisbon** (€111k in 2017), as a result of the use of a below-average number of associates (26).
- Despite €53k above-average ratio value registered in Madeira (2017), Tourism in Rural Areas exhibits lower values in the remaining regions. 1058 companies are registered nationwide, 46 of which from Madeira, diluting the importance of this higher-efficient region

Sales/Associate grows according to the revenue volume, with the highest contrast between Lisbon and the Azores

Sales/Associate, by turnover
(2014-2017; Thousands of €)



Sales/Associate, by region and turnover
(2017; Thousands of €)

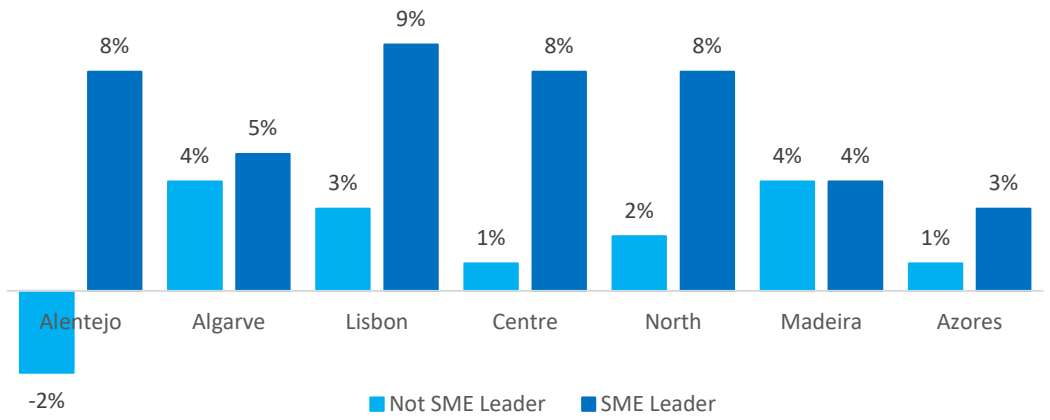


Main Conclusions

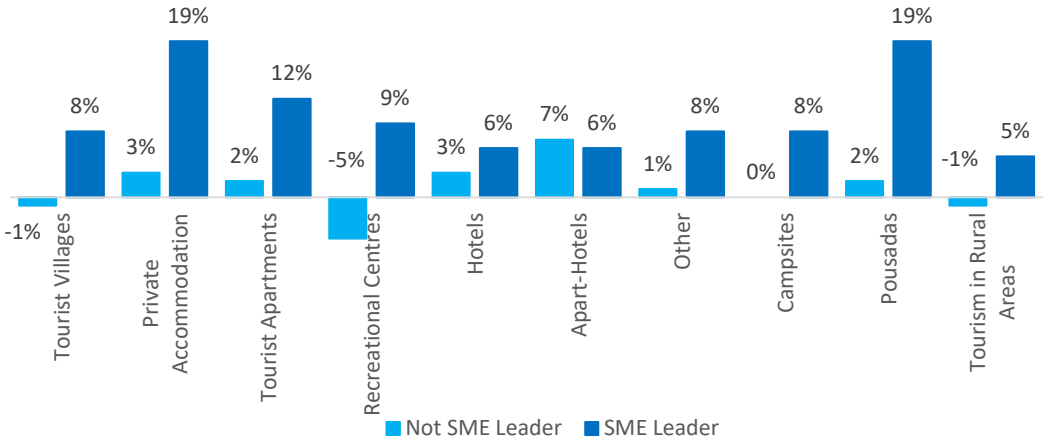
- The growing sales volume per associate exhibits a **proportional relation** to the **increase in companies' turnover**. In addition, a similar upsurge is featured on a **timeline level**.
- In 2017, companies with revenue streams of under €30,000 exhibit lower ratio values because of contrasts within the accommodation subsector. Tourist Villages generate €21k per associate, whereas Apart-Hotels generate only €2k. Geographically, values bear resemblance amongst regions, except Madeira where revenues of €20k are performed per associate.
- An inter-regional asymmetry is observed. **Lisbon** presents **over twice** as much the value of **the Azores**, with stronger asymmetries on the last quartile.
- Within the **2nd quartile**, **Alentejo**'s firms prove **less efficient (**€25k) than the remainders, which stems from the low results generated by Hotels (€20k). Campsites' ratio values strongly increase this quartile's regional averages: Lisbon and the Algarve average 37% and 43% generally; 65% and 55% on Campsites alone.
- Amongst the highest-grossing firms, the value of €86k displayed by Lisbon is heavily **distorted by an entity** generating € 106,759k in sales through 451 employees.

Companies designated as SME Leader present higher ratios of Return on Assets

Return on Assets, by region
(Average of the 4 years; %)



Return on Assets, by Accommodation type
(Average of the 4 years; %)

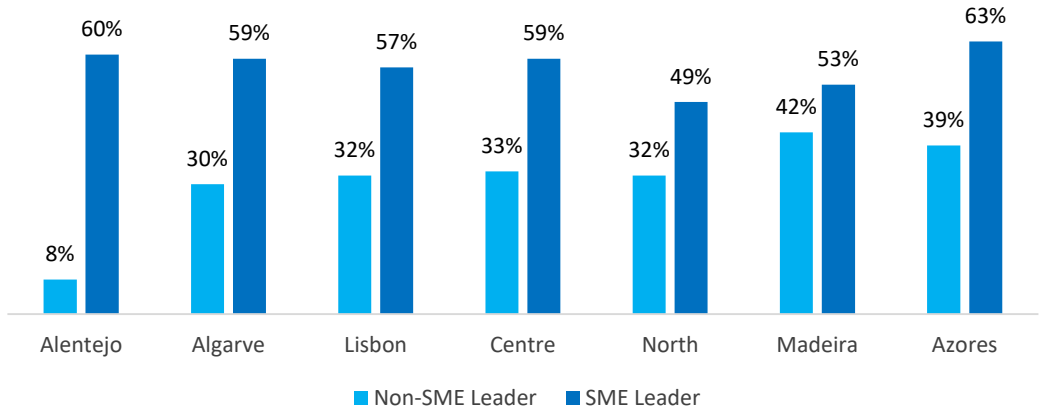


Main Conclusions

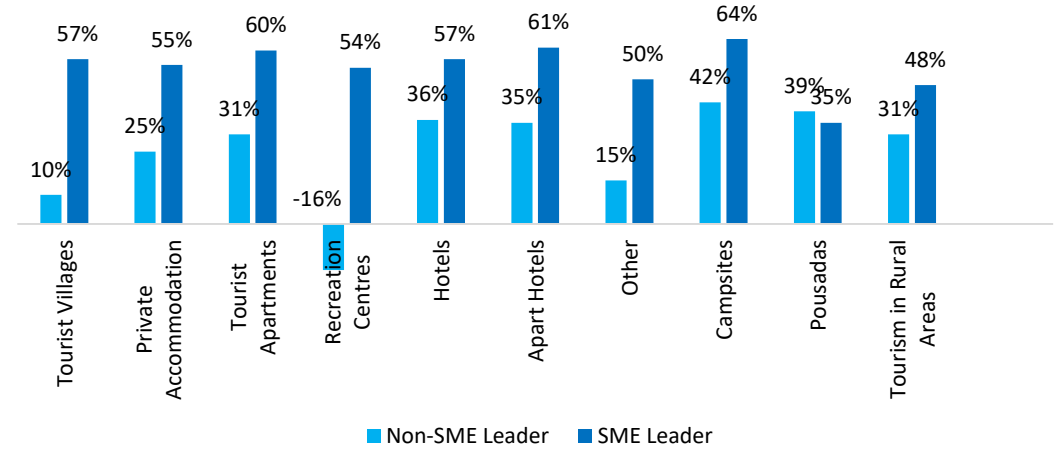
- Companies characterized as SME Leader **exhibit higher rates of ROA throughout all analyzed years**.
- In the **Accommodation subsector**, there were accounted 671 SME Leader companies and 17 thousand that are not SME Leader and, on average, **the rate of ROA of the first category was of 6%,** as long as the second one presented a value of 3%, on average.
- In the Tourism subsector as a whole, the **conclusions are similar**, with the rate of ROA of SME leader companies being 9%, whereas the other companies present 3%.
- Focusing on the average of the 4 years analyzed, it is notable that **all country's regions present higher values of ROA for companies that are SME Leaders**. Only in **Madeira** the values of this ratio are similar for both types of companies.
- Considering the Accommodation subsector, the Apart-Hotels are the only type of accommodation that demonstrates a superior ROA in companies that are not considered SME Leaders. The regions of Alentejo, Lisbon, North and Madeira are the main causes, as there is not available data for SME Leader companies in Alentejo and in the North; in the other regions, the SME Leader companies exhibit lower EBITs.

The Financial Autonomy is superior in SME Leader companies in all regions and subsectors of Accommodation, with an average of 57% throughout the years

Financial Autonomy, by region
(Average 4 years; %)



Financial Autonomy, by Accommodation type
(Average 4 years; %)



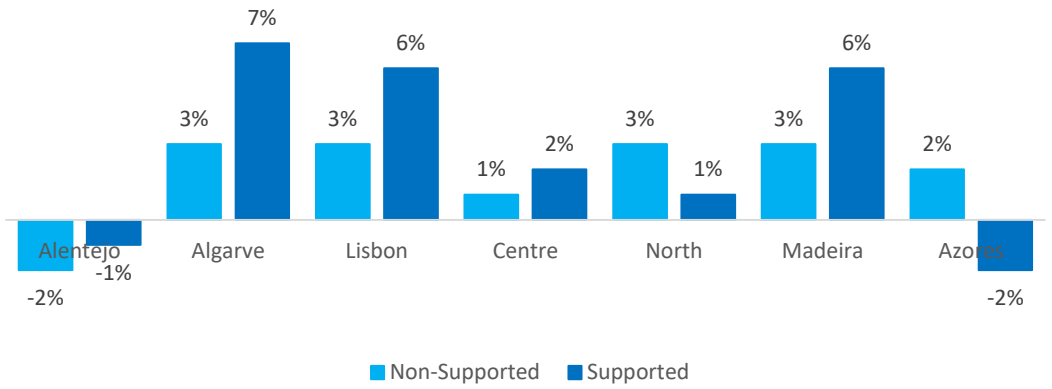
Main Conclusions

- A much **higher Autonomy is observed in SME Leader companies**, with the largest discrepancy observed in 2017 (35% for non-SME Leader and 61% for SME Leader).
- It should be noted that the number of companies Non-SME Leaders increased from 4k in 2015 to 5k in 2017, while companies SME Leaders are on average 168 per year.
- The **Algarve** stands out as the region with **far superior values of Equity** (6,375k€ em 2017) and **Assets** (10,137k€ em 2017) per company, when compared to other regions, for SME Leaders' companies.
- The Alentejo presents the lowest values of Equity of the Accommodation subsector, having declined over the years.

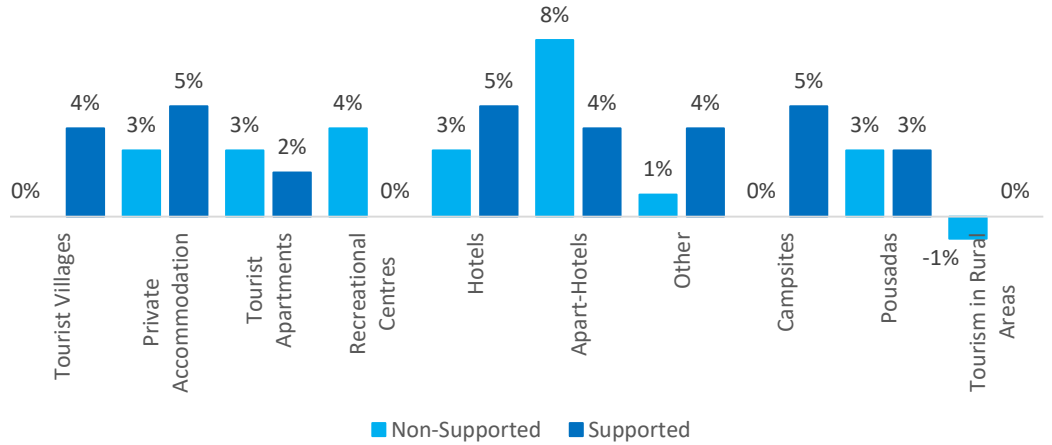
- Also, in the Accommodation subsectors, there is a greater Autonomy in the SME Leader companies.
- It is important to note that in **2017, Pousadas** considered **non-SME Leaders registered more Financial Autonomy that SME Leading companies** (54% and 39%, respectively)

The ROA is higher within projects that were supported by TdP, however, the conclusions are not totally reliable

Return on Assets, by region
(Average of the 4 years; %)



Return on Assets, by Accommodation type
(Average of the 4 years; %)

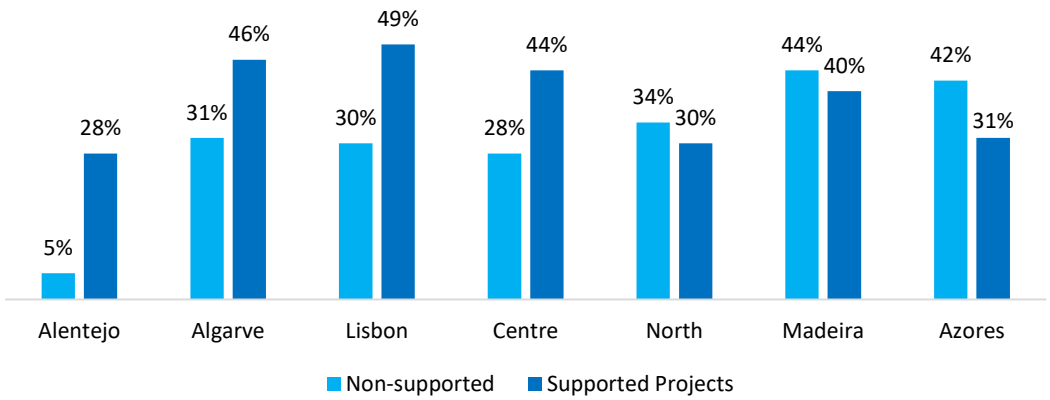


Main Conclusions

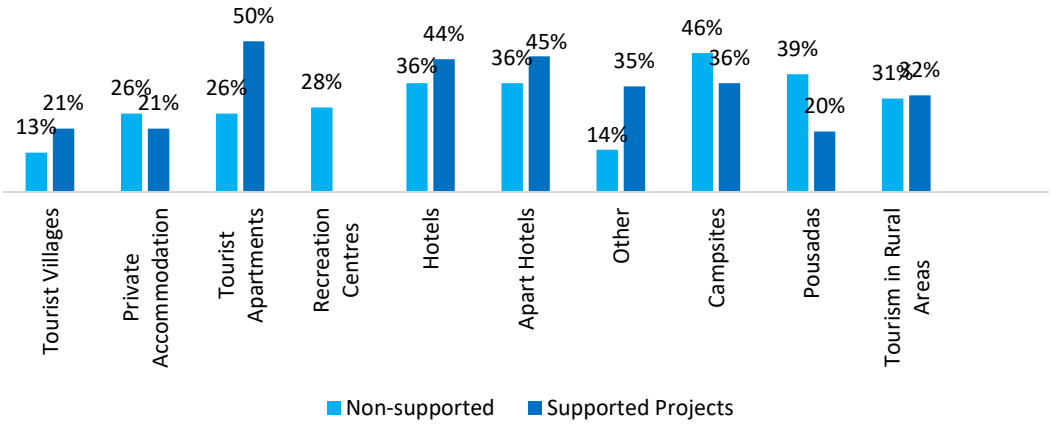
- With this analysis, the conclusions that arise are that, in general, **supported projects exhibit higher rates of ROA than projects that were not supported.**
- In the Accommodation subsector, there were accounted 1283 supported projects and 17 thousand non-supported projects, with **the first category presenting a ROA of 5%** (average of the 4 years analyzed) **and the other one presenting the value of 3%**. For the Tourism as a whole, **results are similar**, with supported projects presenting ROA of 4%, whereas non-supported projects present 3%.
- Taking in consideration the values of ROA as averages of the 4 years analyzed, it is notable **that almost all the regions follow the pattern,** except for **Azores** and the **North**, where non-supported projects present higher rates of ROA. These regions present, on average, negative EBIT for very high values of total assets regarding supported projects.
- Considering the Accommodation types, only for the **Tourist Apartments and Apart-Hotels**, the non-supported projects present higher rates of ROA.
- However, there are some factors as the scope of the project, the capital invested, the years of the project, between others that **were not considered in this analysis.**

In general, the projects supported by Turismo de Portugal have a higher Autonomy, with a highlight for the Algarve, with 45% in 2017

Financial Autonomy, by region
(Average 4 years; %)



Financial Autonomy, by Accommodation type
(Average 4 years; %)



Main Conclusions

- In relation to the **Projects supported by the Turismo de Portugal**, on average, they have **greater Financial Autonomy** (31% in non-supported projects and 43% in supported ones, on average between 2014-2017).
- **Alentejo, Lisbon and the Algarve**, with 10%, 16.8% and 12.5% (respectively) of supported projects in Portugal in 2017, recorded the **greatest difference when compared to non-supported ones**, with Alentejo standing out due to its decrease of Autonomy regarding non-supported projected from 2014 (7%) to 2017 (1%).
- In **Madeira** is observed the **highest values of Equity per company** in Portugal (average of 20,190k€ in 2017) **and of Assets** (average of 50,712k€ in 2017), while Azores has the second highest values, (10,733k€ of Equity; 21,910k€ of Assets).
- In the **North,** the average value per company, of Assets and Equity of the non-supported projects are quite lower compared to the supported ones, despite the first one presenting a higher Financial Autonomy.
- In most of the **Accommodation types**, the **Financial Autonomy of the supported projects is superior to that of the unsupported ones**, except for Private Accommodation, Campsites and Pousadas, which represent only 6% of the supported projects throughout the 4 years.

Chapter V

Conclusion

Alentejo

Framework and Methodology

01 Framework

Tourism Sector

- The sector is experimenting a great evolution, with the number of guests, overnight stays, profits and tourists increasing year by year, however recording an inferior length of stay.

Turismo de Portugal

- The TdP is the National Tourism Authority responsible for the promotion of Portugal, the development and support for and to companies, for the valuation of the tourism related professions and for the regulation and inspection of the practice of the game

Goals to fulfill

- To characterize and understand the existing databases
- Identify the main financial indicators to evaluate and analyze this sector companies performance.
- Identify the main financial indicators to evaluate and analyze this sector companies performance.
- Creation of a financial report

Reasoning behind this project

- To assess profitability
- To identify trends
- To perform an investment analysis
- To access the operations financing structure

02 Methodology

Literature Review

- Despite the variety of reports, the vast majority lack financial indicators to characterize the sector, therefore other type of measurements are required to determine its profitability, solvency and efficiency performance.
- So, to fully evaluate the performance of individual companies, industry-specific ratios should be combined with general profitability, solvency and efficiency ratios.

Databases

- There are more and more companies present in the databases and more with higher business volumes.
- The databases have gaps and errors so measures to correct or surpass them were taken to avoid misleading results and improve the quality of the present report.

Ratios

- After a careful study the indicators chosen to include in this project to evaluate the sector and its inherent companies were ROA, ROE, EBITDA/Sales, EBITDA/PAR, GVA, Net Leverage, Financial Autonomy, ESS/total costs and Sales/Associate.

Dashboard and Analysis

03 Dashboard

Power BI

- The development of a Power BI dashboard was crucial for organizing and simplifying the large data contents, but more importantly, its interactive features really enhanced the perspective and quality of the analysis.
- With this platform the user can easily make an extensive and detailed data analysis, arriving to relevant conclusions without having to access any Excel or other kind of files.

Filters & Clusters

- The filters that exist throughout every page leverage the dashboard flexibility, which ultimately will allow the development of more detailed analysis and enhance the user interactive experience.
- They allow the user not only to set the year(s) to be considered for the further analysis, but also what region(s), tourism and accommodation subsectors.

Travel BI

- The integration of the Power BI's dashboard produced with the Travel BI database used by *Turismo de Portugal* helps characterizing the Tourism sector, by providing additional information in a more user-friendly and concise way, in this case using financial ratios, which are fundamental for business managers to make more knowledgeable decisions.

Ultimate Purpose

- The dashboard was delivered with its respective database, so it can be kept up to date in the future, as new yearly data becomes available and later easily integrated.

04 Analysis

Indicators Evolution

- Throughout the 4 years in study, the evolution of the industry in analysis was really positive, in the sense that, all the indicators have experienced a healthy growth, with the exceptions of the Net Leverage and the % of External Services and Supplies, which is not negative at all, only means that the companies operating in these markets are becoming more independent and self sufficient, depending less in other parties.

Main Conclusions

- It can be said that the Tourism Industry is growing in this country, experiencing a constant and sustainable evolution in the last years. However, it should be noticed that are a few companies that due to their losses and enormous leverage, make the conclusions of the indicators calculated biased and misleading in some regions and sectors, whether using weighted averages or arithmetic ones.

Informa DB exhibits higher VAT correspondences. Its reliable information besides follow-up introduction of filters generates worthy conclusions

Resume

The degree of excellence is a bit subjective and dependent on the criteria defined to access it. A lot of information and databases were gathered from reliable sources and carefully studied and analyzed to meet the expectations and accomplish the goals proposed. The results achieved and consequent study were meticulously computed and conducted and pretty close to the company's projections, in a sense, that followed the trends they anticipate and the big gross numbers met their calculations. A variety of filters and clusters were introduced to obtain more detailed conclusions and diverse perspectives of the industry itself. It allowed to see the evolution of the KPI's and its parcels throw the years on analysis, the categories and subsectors that performed better or worse or are within the average and also, in which regions (NUTS II) the numbers are more favorable or not. Plus, all of these individual analysis can be grouped with another or others, to obtain a combined study and can be done based on total numbers or arithmetic averaged ones.

Location

Informa DB is the major provider of information, the database with the highest number of VAT's associated, the only one that allows a proper and complete overall study of the industry in analysis and with a big set back – the location. Grouping the information and presenting it based on the headquarters' NUTS II can compromise the quality if the aim of the investigation is to discover in which regions it is more profitable to possesses an enterprise, for example. Year by year the number of companies that possesses more enterprises increases as well as the number of enterprises each one has associated, so the quality as the potential to be more compromised. The same does not happen on the remaining databases, which is why, when *Informa DB* is combined with another source of information problems may arise, unless the other gets grouped too based on the VAT and its respective location (regarding only the ones that correspond to the broad Accommodation category). Another way to do this is by using a proxy to divide the information on the biggest database by enterprise and therefore breaking it down by its actual location and not the one corresponding to the VAT's headquarters. As stated before, the attempt to do so brought others concerns.

Informa DB offers 70-80% correspondence with RNET database, with its location as VAT headquarters decreasing overtime. Matching with the remainders proves lower. Besides, PME Líder status one year eligibility only

Location (continued)

When the analysis focus was just to combine the *Informa DB* database with the *RNET* one (the second biggest) the results were not too bad, regardless of the gaps created when trying to intersect the VAT's number. Around 70% to 80% is accounted, however, from those the number of enterprises located near its VAT headquarters has decreased a lot, which, ignoring the mismatches, can compromise the quality of the overall analysis.

When the attempt passed throw matching the 4 more relevant databases the panorama got worse, now the % retained was around 40% to 50% and the one corresponding to the same location as the VAT's is a lot smaller. However, the higher the number of databases interconnected, the higher the information lost and the smaller the sample, so less representative of the universe. That was why the idea of performing the analysis based on each enterprise location was abandoned.

Information

The information and therefore the databases are a massive source of the analysis performed, that is why when there are flows or gaps it impacts a lot the final results and conclusions:

• Gaps – Again, more information could be included in the *Informa DB* database to avoid proxies and approximations related to the location problem, and also, when it comes to FTE's, the number of hours worked of each company is only address to the last year of the present study, 2017, so an evolution pattern can not be found, however this may be the most complete source provided. The databases *Preços ao Balcão* and *Taxas de Ocupação* have some lines fulfilled without a VAT assigned to it, which means that these data gets unable to be used. Plus, the *PME Líder* database provided only includes the last two years, and therefore the choice to classify a company as a *PME Líder* (SME Leader) required only appearing at least once and it would appear as a *PME* in all years, in order to have a more homogeneous dashboard and evaluate its progression throw the four years in study.

The overall accuracy of the project is very positive when the computation relies on the Informa DB or RNET databases. However, this accuracy decreases when other databases are included

Information (continued)

• Poorly filled – Not only several enterprises' names are wrongly written in databases such as *RNET, Taxas de Ocupação* and *Preços ao Balcão* but also they are not coherent between the last two and the first one. These errors include spaces out of place, misspelled words, incomplete names or words name simply in a different order. All of these represent mismatches when combining databases and therefore cautiously and meticulously names had to be corrected one by one to decrease flaws, since that wasn't any pattern within these imperfections. These last two sources also have the potential to compromise the quality if information from them is retrieved, in a sense that, the surveys performed to achieve it do not cover the whole universe they are included in.

Projetos Apoiados

The criteria used to classify a company as a *Projeto Apoiado* (Supported Project) was similar to the *PME Líder* one. This means that regardless of the capital invested and the time in which it was borrowed if it was once a *Projeto Apoiado* it remained for the rest of the years in study.

Overall

The quality of the project is really good, specially when the computation of the indicators depends only on the *Informa DB* database. Even if it relies also on the *RNET* (EBITDA/PAR) the approximations are not that bad. The problems arise when trying to include the other databases, which leads to great losses of information and number of VAT's and therefore there was the need to cut them off of the analysis.

Tourism Sector Analysis

Description	Nº of Companies *Informa DB*	The total number of companies in the industry has been increasing at a constant pace. The constant movement of companies entering and leaving the market is representative and impacts the financial indicators analysis. The highest growths occurred in the Azores, Accommodation – others and for business volumes >=220.000.
Profitability	Return on Assets	The rate of ROA has been growing over the years, attaining its maximum value in 2017 (6%), mainly due to an increase on the companies' EBIT. All the Portuguese regions presented an increasing pattern in the rate of ROA, although Alentejo's rate remains null in 2017, as the enterprises within the region demonstrate poor EBIT levels, essentially on the Accommodation subsector. All the tourism subsectors present growing evolutions on the rate of ROA.
	Return on Equity	The rate of ROE gradually increased over the analyzed years, achieving its maximum value in 2017 (14%), as a result of successive increases in the net income of the companies in Portugal. Both the regions and the subsectors of Tourism demonstrate increases on the rate of ROE over the years, with the highest values attained in 2017. As for Alentejo, the region still displays negative results regards this rate, caused by poor net incomes associated mainly with companies within the accommodation subsector.
	EBITDA/Sales	The EBITDA/Sales has been showing a positive development through the years, reaching its higher rate in 2017. The ratio has been growing on average 14,1%, mainly due to a sharper growth of the EBITDA in relation to sales. Almost every region across exhibits a ratio growing trend, with Lisbon, Algarve, Azores and Madeira presenting great results. These are mainly reflected in the Accommodation and Renting subsectors, that have been presenting excellent performances over the years.

Tourism Sector Analysis

Profitability	Gross Value Added	The average GVA growth is showing a great evolution, increasing year by year. This great panorama, is a result of the increase in the revenues share, which was proportionally greater than the rise in the costs portion. In all regions of the country, GVA tends to increase throughout the years, with the Restaurants and the Cafes exhibiting incredible average evolutions, while the Renting subsector shows abnormal decreasing values.
Solvency	Net Debt/EBITDA	Tourism has seen a decrease of Net Leverage from 2014 (6.4) to 2017 (3.0) with a major impact coming from an increase of total EBITDA (and average per company). This was experienced by the majority of regions, with Azores and the North presenting the lowest Net Leverage in 2017 (2.1 for both), and Lisbon presenting the highest level of Net Debt per company and total (due to the large amount of companies). Also, most of the subsectors decreased their Net Leverage (a decrease of 50pp between 2014 and 2017).
	Financial Autonomy	It was experienced a general increase of Financial Autonomy from 2014 (27%) to 2017 (30%) in Tourism. Even though the total Assets increased, the average per company decreased, while for Equity, both the values per company and total increased. The highest values of Autonomy were experienced by the Islands, Azores (45% in 2017) and Madeira (41%). Alentejo experienced the lowest values throughout the years, due to the impact of a number of companies with a greater amount of Assets but depending highly on foreign capital. Cafes had the lowest values of Autonomy due to the low values of total Equity.
Efficiency	Sales/Associate	The Sales/Associate ratio increases overtime, which stems from increasing sales alongside a static number of associates. However, inter-regionally, Azores is the sole region that features a decreasing in its ratio (2015-2016). Renting and Travel Agencies feature the highest values. Despite Accommodation's similar sales to Travel Agencies, its heavy use of associates decreases the ratio.

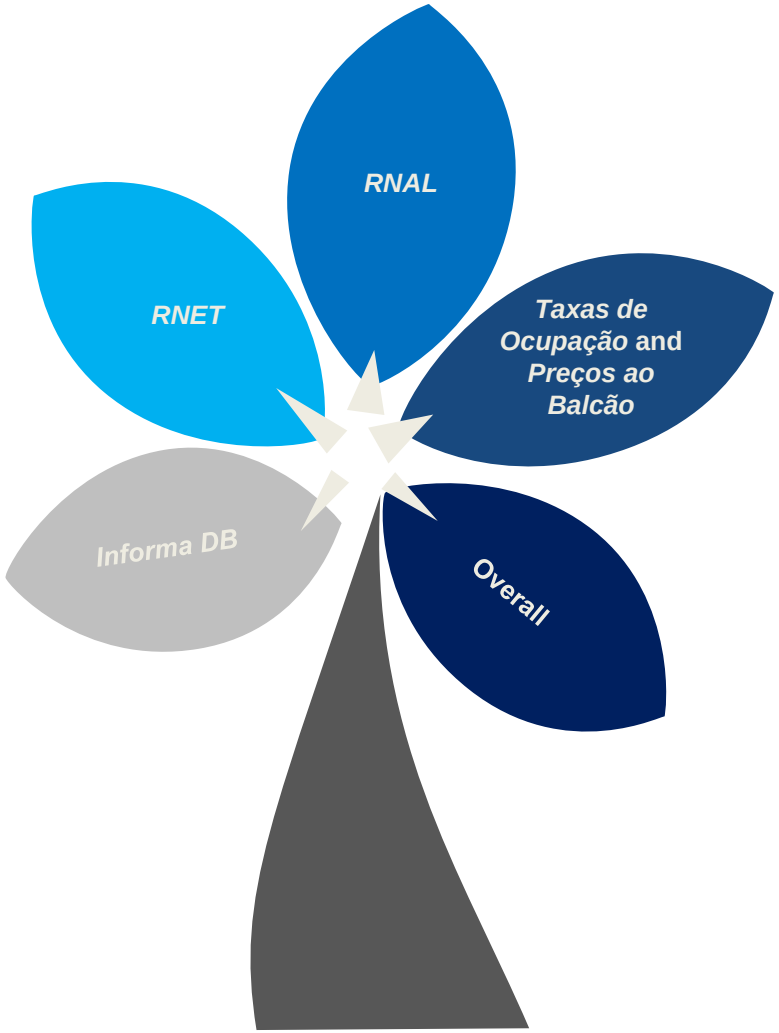
Accommodation Subsector Analysis

Description	Nº of Companies *Informa DB*	The Accommodation as a whole (meaning, including the "Other" category) represents, on average, 15% of the global market, and Lisbon and the North account for half of this universe. The largest increase occurred in the Azores (80%), however, the North and Lisbon were the major sources of new incremental companies, contributing with 1 thousand more companies together.
	No of Companies *RNET*	Around 70% to 80% of the *Informa DB*'s total items are covered when combined with *RNET*'s information, which corresponds to 8.045 companies. More than 20% of the rooms registered on the *RNET*'s database are not accounted for each year due to mismatches and wrongly field number of rooms. In the last two years around 50% of the EBITDA, approximately, comes from the headquarters location, which is quite unsatisfactory.
Profitability	Return on Assets	Almost all the regions of Portugal exhibited growing patterns on their rate of ROA, with the North providing an above average growth. Algarve exhibited a considerable increase in 2015, due to an EBIT boost on the companies within that region in that year. As for the accommodation type, the Tourist Villages and the Tourism in Rural Areas are the ones with the worst rates of ROA. On the other hand, the Hotels, Apart-Hotels and Pousadas are the accommodation subsectors that demonstrate the best rates, amongst all the enterprises registered. Moreover, companies within the accommodation subsector that have revenues >=220 000€, have proven to be the ones with the highest rates of ROA.
	EBITDA/PAR	The EBITDA/PAR shows a growth trend through the 4 years, mainly due to an average annual decrease of 6,3% in the number of rooms and an increase of 17,5% in terms of EBITDA. The Hotels present great evolutions, and these come mostly from companies in Lisbon. Plus, companies with larger turnovers tend to have better ratios, this trend suggests that the greater the company's turnover, the greater the existing scale effect.
Solvency	Net Debt/EBITDA	Accommodation and Accommodation-Other present the highest values of Net Leverage until 2017. They also present a decrease in Net Leverage in all regions between 2014 and 2017, with an exception to Alentejo, which presents negative Net Leverage in 2014 (-132) ad 2015 (-205). The largest decrease in Net Leverage was witnessed by the North and Azores due the increase in total EBITDA. As the Business Volume increases, the Net Leverage decreases.

Accommodation Subsector Analysis

Solvency	Financial Autonomy	Accommodation (and Accommodation-other) present the highest values of Autonomy within the Tourism industry (and average Equity per company) with 37% in 2017. The relative low Autonomy values of Accommodation in Alentejo can be explained by its greater dependence on foreign capital (of essentially 2-5 companies). Therefore, by only considering Business Volumes between 30.000€ and 90.000€, the Autonomy in this region is above 20%. The subsectors Hotels, Apart-Hotels and Pousadas are the ones the most financially autonomous.
Efficiency	Sales/Associate	The Sales/Associate ratio exhibits higher values in Lisbon. In addition, it features a nationwide value increase across time because of a decreasing number of hired associates. The growing sales volume per associate exhibits a proportional relation to the increase in companies' turnover.
	Cost Structure	% of External Services and Supplies in Total Costs represents the largest source of costs and exhibit a contrast between Algarve and Alentejo. In the latter is where the strongest discrepancy between its two most representative typologies lies, with Hotels and Apart-Hotels spending 35% and 71% of their total costs on ESS, respectively (2017). Besides, companies within the lowest turnover have a more ESS-dependent cost structure.
Extra	SME Leader	Companies characterized as SME Leader present higher ROA rates for all Portugal's regions, throughout all analyzed years. Regarding the Accommodation subsector, on average, the rate of ROA of SME Leader companies is 6%, whereas the other companies exhibit a rate of 3%. As expected of companies that are considered SME Leaders, the Financial Autonomy is greater in every region and in every subsector of Accommodation, with an exception of the Pousadas, when compared to companies that non-SME Leaders. On average, in 2017, SME Leader's companies registered an Autonomy of 61% (and 57% as an average between 2014-2017), while non-SME's 35% (32%).
	Supported Projects	In general, supported projects by TdP exhibit higher ROA rates than non-supported projects, as the first category presents a ROA of 5%, whereas the other presents a ROA of 3%. Regarding the Accommodation subsector, Azores and the North do not follow the pattern, as non-supported projects present higher ROA rates. In general, projects that were supported by TdP experienced a greater Financial Autonomy in the Accommodation sector, in all regions except the North and Azores. In the North, even though the supported projects presented a lower Autonomy, its average values of Assets and Equity were superior when compared to the other ones. Every subsector of Accommodation also experiences a greater Autonomy for supported projects, with exception for Private Accommodation, Campsites and Pousadas.

There are still improvements to be made to the databases in order to account for all the information accurately, such as using the location of the enterprise instead of the entity location, which groups them all together



Informa DB

This database is the biggest one, and the only one containing all the categories and not only the accommodation sector. Regarding that category, it remains the one with more VAT's associated, however, the accounting and financial information should be discriminated by each enterprise alone and not by the whole bunch associated to a VAT, in order to decrease the necessity of using approximations or proxies and therefore obtaining more accurate quality results. To perform a better quality analysis, it should be done with information corresponding to the location of each enterprise and not based on reports that group them all together by VAT, and therefore accounted on the headquarters. Year by year the number of companies that possesses more enterprises increases as well as the number of enterprises each one has associated, so the quality as the potential to be more compromised.

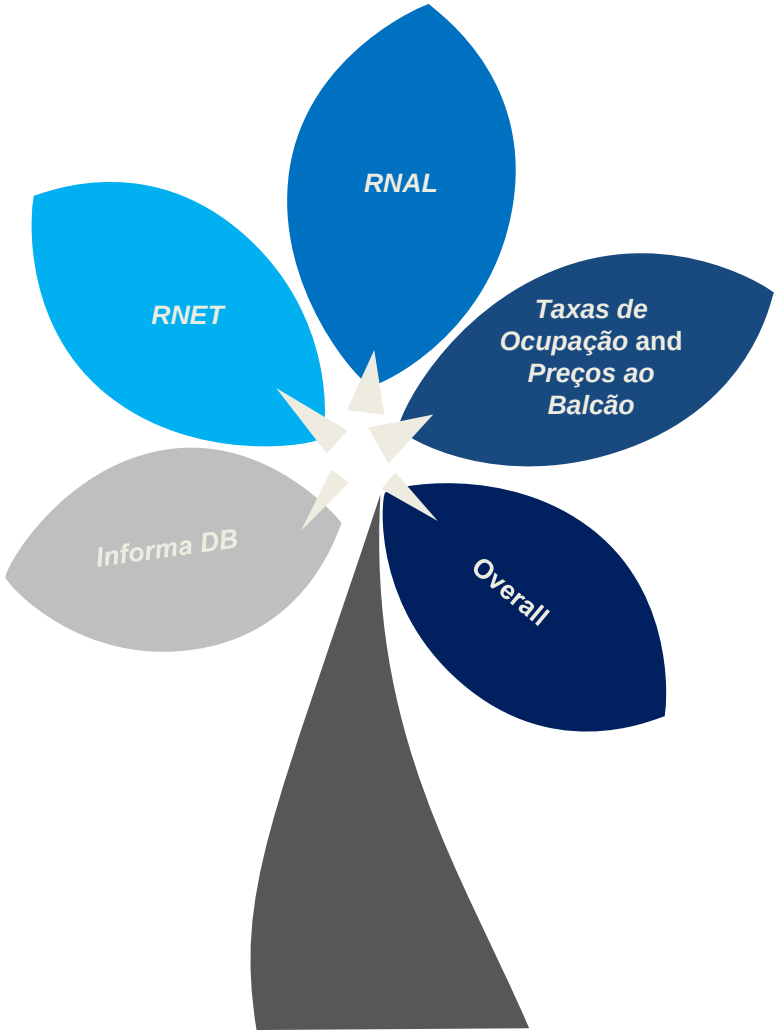
RNET

The information retrieved from the *RNET*'s database is a like a screenshot of the actual companies registered at this precise moment, therefore firms that have left the market will not appear as well as the ones that have just began activity. That is why it is important to keep a record, at least an annual one, to analyze the evolution not only of the number of available rooms for each enterprise but also the number of registered companies each year.

RNAL

The biggest problem with this database is the criteria used to classify a enterprise as a local private accommodation, which are the ones accounted in this base. Accommodations with the possible maximum occupation inferior to 10 persons, will be automatically excluded from the records and in this sense, a lot of information is lost. Despite that, this database is not separated by year, the problem on the *RNET* base arises here too, however, the local private accommodation represents, on average, 10% per year, of the total accommodation category, and therefore the impact of this difficulty is a lot smaller.

Even though the rate of response of the survey TdP sends is around 65%, data from Informa DB exhibits that only 20% does, with the mismatch coming from the lack of homogeneity between databases



Taxas de Ocupação and *Preços ao Balcão*

These two databases result from surveys that the *Turimo de Portugal* Company sends to the enterprises directly and some of them reply with the answers to their questions. The company has a rate of response that rounds the 65%-70%, according to them, however, on average, 873 and 850 VAT´s are considered in the *Preços ao Balcão* and *Taxas de Ocupação* databases, respectively, while 4522 a year, on average, appear in the *Informa DB* and correspond to the accommodation category. Clearly, those values do not comply with the 65%. Plus, these surveys should have the VAT as a field to fulfill and not be matched afterwards, which results in some mismatches and, therefore, even more information losses (5% each year in the *Preços ao Balcão* for example). Maybe there should be a better way to retrieve this information or at least make it reach more enterprises and find a way to demand answers.

Overall

It is important to have a more cohesive and coherent information among databases, have the same time intervals, not some in years and others in months, have the VAT in all of them because it is a unique, distinctive characteristic of a company and have the same group divisions, in the sense that, if in one database the information is separated by each enterprise alone, in another it should not be grouped by the VAT. To sum up, it would be ideal to have a number of enterprises or companies more homogeneous between databases to avoid major losses of information when trying to perform more detailed analysis or based in different filters.

The characteristics of the industry need to be understood to decide the most adequate ratios to approach

- In order to transpose this analysis to a different sector, the **financial ratios that are transversal and relevant throughout all industries should be understood, considered and combined with each industry-specific ones**.
- Financial ratios are usually broken into **4 main categories**: profitability, liquidity, leverage and efficiency, with several specific ratio calculations prescribed within each category. Nevertheless, determining which ratios to compute depends on the **type of the industry, its age, the point in the business cycle and any specific information sought.**
- In this regard, financial indicators should be carefully chosen, as performed in the present study, and those could be applied in another sector as long as it is suitable and properly complemented with that industry adequate specific ratios, **depending on the characteristics of the sector in question.** For instance, to bridge this analysis to the Retail Business, some ratios as the ROA, EBITDA/Sales, Net Debt/EBITDA or Sales/Associate could be applied as here. However, this sector analysis would be complemented with industry-specific ratios as the Sales per Square Foot.
- Financial ratios are **key to measure the progress** within company goals and towards competitors. However, despite all positive uses of this analysis, one should have in consideration their **limitations** and use this approach with a certain degree of caution.

Some examples of Industry-Specific Ratios

Industry	Indicators	Description
Banking	Capital Adequacy Ratio	Measure of a bank's capital to its risk
	Loan to Deposit Ratio	Measure of a bank's liquidity
Manufacturing	Inventory Turnover	Measures the effectiveness of a company's manufacturing process
	Manufacturing costs to total expenses	Measures the expenses tied to production
	Unit Contribution Margin	% revenue attributed to fixed costs
Logistics	Fixed Mileage Cost Ratio	Measures the average cost per mile
	Dead Head Cost Ratio	Measures the costs of a trip without cargo
Retail Business	Sales per Square Foot	Average revenue a retail business creates
	Days Sales Outstanding	Measures how long a company takes to collect accounts receivables
	Days in Inventory	Average time a company takes to turn its inventory into sales
	Days Payable Outstanding	Average time a company takes to pay its invoices and bills
	Cash Conversion Cycle	Measures the length a company takes to convert its investments in inventory and other resources into cash flows from sales

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